SDMS US EPA REGION V -1

SOME IMAGES WITHIN THIS DOCUMENT MAY BE ILLEGIBLE DUE TO BAD SOURCE DOCUMENTS.

SITE INSPECTION REPORT FOR

CHEMICAL RECOVERY SYSTEMS, INC. ELYRIA, OHIO RO5-8303-02 RO5-8512-06

> APRIL 24, 1986 OHD057001810

SITE INSPECTION MEMO 2070 - 13 FORM SITE MAPS SITE PHOTOGRAPHS ANALYTICAL DATA



ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415 International Specialists in the Environment

MEMORANDUM

DATE:

April 28, 1986

T0:

File

FROM:

Pat Petrella

SUBJECT: 0h io-R05-8303-02/0H0293

Elyria/Chemical Recovery Systems, Inc. Site (CRS)

OHD057001810

This site was originally identified by the Ohio EPA in the form of a Preliminary Assessment submitted to the U.S. EPA. FIT performed a site inspection on February 5, 1986. In addition, sampling of the Black River adjacent to the facility was done as directed on Technical Directive Document RO5-8512-06. The purpose of this sampling, site background and description, and a sampling activities' description are described in the attached memo.



ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415 International Specialists in the Environment

MEMORANDUM

DATE:

April 22, 1986

T0:

Erin Moran, RPM, USEPA, Region V

FROM:

Pat Petrella, Ecology and Environment, Inc., FIT

SUBJECT: Ohio/R05-8512-06

Elyria/Chemical Recovery Systems

OHD057001810

INTRODUCTION

The purpose of this sampling activity was to determine if the Chemical Recovery System, Inc. (CRS) site is presently contributing to contamination of the Black River and to verify the sampling data obtained by the CRS contractor, CLOW, Inc.

A Technical Directive Document (TDD) for requesting FIT services was issued December 17, 1985 for the following scope of work:

- Collect water samples from the Black River upstream and 0 downstream of the CRS site as specified by the RPM.
- Collect a water sample from a designated site outfall to 0 the River, if possible, as specified by the RPM.
- Submit water samples to CLP for analysis. 0
- Submit a technical memorandum of field activities.

SITE BACKGROUND AND DESCRIPTION

The CRS site is approximately 4 acres and is located at 124 Locust Street, Elyria, Ohio in Lorain County. The downtown area of Elyria is approximately 2.5 blocks from the site. To the North and East, the site is bordered by Harshaw Chemical Company. It is fenced on the North, South and East sides while bordered by the east branch of the Black River and a 25' high, densely vegatated steep slope on the west. Presently, 1 building and foundations for 2 others structures are onsite. Refer to Section 2 for a location map and site sketch.

The site property is presently owned by Mr. and Mrs. Russell Obitts. Mr. Obitts operated a Chemical Recovery Facility onsite before leasing the property to CRS in 1974. CRS accepted drummed and bulk chemical wastes for reclamination using a distillation process. As a result of citizen complaints and site investigations by the local Health Department and Fire Inspector, severe contamination onsite and in the River was identified. Fire code violations were also found. The Fire Marshall declared the site to be a fire hazard and ordered the violations corrected. Follow-up inspections by the U.S. EPA revealed approximately 4000 55-gallon drums and 53,500 gallon of bulk chemical stored improperly onsite. Sample analyses of spilled materials indicated the presence of various hazardous substances including PCB, trichloroethene, metlyl elthyl Ketone (MEK), toluene and xylene.

Because the site posed a substantial threat to the local population and the environment, U.S. EPA initiated legal action. On October 7, 1980 a civil action was brought on behalf of the U.S. EPA in the U.S. District Court, Northern District of Ohio, against CRS to abate an imminent and substantial endangerment to public health and the environment.

The law suit also sought restitution of money spent for investigation of the site. Chemical Recovery responded by removing the drums, tanks, and process equipment from the site and transporting hazardous waste to U.S. EPA approved disposal sites. In 1981, U.S.

EPA approved disposal sites. In 1981, U.S. EPA requested FIT (Ecology and Environment, Inc.) to perform a hydrogeologic study at the site. Sample analyses revealed a release of contaminants to groundwater and extensive soil and subsurface contamination. As the result of this study and information obtained from other site visits by the U.S. EPA a consent order was issued July 12, 1983. Refer to Section 5 for a copy of this document.

In addition to the remedial work, the consent order required CRS to sample the Black River periodically to monitor the site's impact on the river. The Company contracted CLOW, Inc. to do this surveillance work. To verify the quality of the sampling performed in November, 1985 by CLOW, Inc. and assess river water quality, U.S. EPA requested FIT to sample the River.

FIELD ACTIVITIES

PRE-SAMPLING ACTIVITIES

Upon arrival on February 5, 1986, the entrance to the site was locked. After determining that the appropriate access route to the river for sampling was from onsite, FIT contacted Mrs. Obitts to gain access. After clearing the site, FIT proceeded to locate the sampling points along the river. These locations are shown on Figure 2 in Section 2. Mrs. Obitts left the site requesting FIT lock the gate when sampling was complete

SAMPLING ACTIVITIES

The samples S1, S2, and S3 were collected from three distinct sampling points along the river upstream and downstream of CRS and at an outfall discharge from CRS (See Figure 2). All sample locations were on the east side of the east branch of the Black River. Sample

S1 is the downstream sample, S2 is the outfall sample, and S3, the upstream sample. Sample S1 was collected approximately 12 feet upstream of the site's southern fence line because there was no place to stand along the river's edge, further downstream, to collect the sample. Sample S2, the outfall sample, was collected downstream of a point suspected of being the outfall location sampled by CLOW, Inc. in November, 1985. This alternate location was chosen since the outfall pipe could not be found. This location was chosen based on the following information:

- o Approximately 20' upstream of the sampling point was a cove recessed into the river bank that indicated where an outfall may have been active at one time. There was no flow from this location into the river.
- o Broken drain tile was noted in the cove area. A report by Ecology and Environment, Inc. (E&E) dated April 26, 1982 indicates that the outfall in question was the drain tile.
- o The actual distance from the north site boundary to the center of the cove was approximately that distance measured by E&E during the hydrogeologic study.

A duplicate sample was collected at location S2. A blank of distilled water was also prepared. None of the samples were filtered. The river appeared to exhibit higher flow than usual because of melting snow and rain.

Upon leaving the site at approximately 5:30 p.m., FIT locked the gate. The following day, FIT met with Mr. & Mrs. Obitts and provided a receipt for samples.

SAMPLE SHIPMENT

Samples were packaged and shipped on February 5, 1986 according to established U.S. EPA protocol to the following laboratories:

Chemtech Consulting Group, LTD. (Inorganics) 360 West 11th Street
New York, New York 10014
(212) 255-2100

Hazelton Laboratories (organics) 3301 Kinsman Boulevard Madison, Wisconsin 53704 (608) 241-4471

92Z:6F

\$EPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

I. IDENT	IFICATION
OI STATE	02 SITE NUMBER
OHO	02 SITE NUMBER 05 7001810

PART 1 · SIT	E LOCATION AND	DINSPECTION INFORMAT	ION	
II. SITE NAME AND LOCATION			-	
O1 SITE NAME Repair common or descriptive name of also;		TO2 STREET, ROUTE NO . OR SPEC	FIC LOCATION IDENTIFIER	
Chemical Recovery Sys	tems INC.	124 Locust	St.	
as city (O4 STATE 05 ZIP CODE 06	COUNTY	07COUNTY 08 CONG
ElyRIA		04 44035	LORAIN	000E DIST
OP COORDINATES LATITUDE 4/52700.0 82.100.0	10 TYPE OF OWNERSH	IP (Crock one)	C STATE D COUNT	
III. INSPECTION INFORMATION	<u> </u>			
DI DATE OF INSPECTION 02 SITE STATUS	03 YEARS OF OPERA		······································	
OZ,05,86 DACTIVE	Pre	1974 1 / 1983 INNING YEAR ENDING YEAR	UNKNOWN	1
D4 AGENCY PERFORMING INSPECTION (Check all Inst apply)	1	CHOICE TELEVISION OF THE PARTY		
□ A. EPA ■ B. EPA CONTRACTOR Ce+ 1+9 4 5	ENVIRON MENT	C C MUNICIPAL D.D. MUN	ICIPAL CONTRACTOR _	(No me of Ism)
I I F STATE I I F STATE CONTRACTOR	(Name of Irm)	D G OTHER	(Suecity)	
05 CHIEF INSPECTOR	06 TITLE		07 ORGANIZATION	08 TELEPHONE NO
PAT Petrella	Chem	ICAL ENGINEER	" NOINI DACK	4 13121663 9415
09 OTHER INSPECTORS	10 TITLE		11 ORGANIZATION	12 TELEPHONE NO.
MARK Luns FORD	ENVIRON	mental Sciendist	Environment	(312) 663 9415
DAVID VAUgha	Geolo	915+		()
				()
				(-)
				()
13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE PASSE	15ADDRESS	<u> </u>	16 TELEPHONE NO
Mas. R. OboHs.	OWNER	1130 Gulf	Ro.	(216) 365-257
				()
				()
				()
				()
				()
17 ACCESS GAINED BY THE OF INSPECTION	10451515000	(TOME	· · · · · · · · · · · · · · · · · · ·	
17 ACCESS GANED BY (Check ener) B PERMISSION D WARRANT	RAIN D	eizele), Cloudy,	(00)	
IV. INFORMATION AVAILABLE FROM				
01 CONTACT	02 OF (Agency Organi			03 TELEPHONE NO.
ERIN MORAN	U.S.	Environmental Pro-	tection Agency	13121.8867225
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	Garles	7 TELEPHONE NO.	OB DATE
PAT Petrella	USEPA	Beology +	312-663-9415	

9	EÍ	PΔ
V		

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 2- WASTE INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

PHD 057 001816

				E III/ ONWIATION			
	TATES, QUANTITIES, AN						
DI PHYSICAL S	TATES (Check of Mai apply)	02 WASTE QUANTI	TY AT SITE	03 WASTE CHARACTI	ERISTICS (Check of the)	apply I	
A SOUID	DE SLURRY	mus: be a	ngeriendenti	S A TOXIC D B CORRO	DE SOLU		ILY VOLATILE
D C SLUDGE			PRIOR to	E C RADIOA	CTIVE G FLAN	MABLE DIK REA	CTIVE
		CUBIC YARDS _		D PERSIS		E 14 110	OMPATIBLE TAPPLICABLE
D D. OTHER	(Spec#y)	NO. OF DRUMS	- 4000 Daums	SITE WAS	cleaned a	PPER 63	
HI. WASTE T	YPE		·- ·- · · · · · · · · · · · · · · · · ·		7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		
CATEGORY	SUBSTANCE N	AME	O1 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS		
S LU	SLUDGE						····
OLW	OILY WASTE		. 7	made	0:	11-	
SOL	SOLVENTS	· · · · · · · · · · · · · · · · · · ·	· A	-	may ,	o creamy	
	·····		ungenem	unanan	gumtet	res of spe	cific
PSD	PESTICIDES		-,		CATEGORIA	es were m	W. T.
occ	OTHER ORGANIC CH		unknow	unhan	Avalin6 (e	Samph	e ANALYSES
ioc	INORGANIC CHEMIC	ALS	unknum	unknam	prior to	+ do law.	٠,,
ACD	ACIDS				CLEANUP	inocate	Here
BAS	BASES			,	categon	IFS AND	the
MES	HEAVY METALS		unknam	unknam	following	hAZARDO	us Substanc
IV. HAZARD	DUS SUBSTANCES (See A	pendix for most frequently	y card CAS Numbers)				£
D1 CATEGORY	02 SUBSTANCE N	ME	03 CAS NUMBER	04 STORAGE/DISF	POSAL METHOD	05 CONCENTRATIO	N GR MEASURE OF CONCENTRATION
	During this	5I, F	T SAMP	ed the Blo	ACK RIVE	R	
	Lu de termine	if H	esite wa		~ tribution	•	ation.
	The site faut	y equip n	rent + WA	stes burn	e bon rev	7	/
	Some soil	s excau	ated. IN	CONJUNCTION	with A	in Active	1
	Fralace & K.	JLRONM	nt reads		draelso	c Studen +	7
	C 100 G F & N	- 1	1 4 6 - 0	Sad and	and grand y	5	Wal A
	SAMPLEA	6 W, 5a	112 ma	Janes H.	1600	ections	AHAchneut
'/	OUTILWEE F	nese res	res sho	wing Fro	WAS LE CI	ARACIOR	
	on site.	reter +	yhis y	May 70 K	INFORM	11/100	
	in the na	2. 5445	+ MNCES	17 Ine a	ACITING.	Al10 1154	7
2	15 recent	Surface			he Black	raner sy	the for
(z-5-86)	4 SEBA, ICEGIO	OK & CI	OW, INC	ton To	hom, Recor	very system	15 Inc.
						<u> </u>	
							-
						1	1 7
V. FEFDSTO	CKS (See Appenois to: CAS Numbe	ics!				<u> </u>	
CATEGORY	01 FEEDSTOC		02 CAS NUMBER	CATEGORY	O1 FEEDSTO	OCK NAME	02 CAS NUMBER
			DZ CAS NUMBER			JON HAME	OZ CAS NUMBER
FDS	WASK SOLU	ents, H.M.		FDS	···		-
FDS				FDS			
FDS				FDS			ļ
FDS				FDS		 	
	S OF INFORMATION IC.			PPORE!]
EAE hu	drogologic Re	rt. E+E	files				
Concent	dogologic Ry	3 6+6	Files				1
	-, -, -, -, -, -, -, -, -, -, -, -, -, -		,				
							ì

\$EPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

L IDENTIFICATION

101 STATE 02 STE NUMBER

10 HD 057 001810

N. HAZARDOUS CONDITIONS AND INCIDENTS		
01 B A. GROUNDWATER CONTAMINATION ~ 68 03 POPULATION POTENTIALLY AFFECTED ~ 68 For the 4-12-82 report by E+E,	02 DOBSERVED (DATE 4-12-PZ) 04 NARRATIVE DESCRIPTION DURING AN 06 Served release was	D POTENTIAL DALLEGED The Sampling of wells Leteched to Consund-
use grounous kerton deinking	s AND MISC. ORGANIES, Ve.	Ry Few INDIVIOURS
AD BODIE ATION BOTCHTIALLY ACTEOTED	02 DOBSERVED (DATE: 3/8/1) 04 NARRATIVE DESCRIPTION	
Contamina tean of the Black Re the site. Closest in take I Seeps have also been seen,	s > 4 miles ar Ay IN L.	4 Ke Erie Lanchate
suspect of being contain	from the \$160 + an and AA II	(confid mina soa) 15
D1 D C. CONTAMINATION OF AIR 03 POPULATION POTENTIALLY AFFECTED 0-	02 © OBSERVED (DATE:) 04 NARRATIVE DESCRIPTION	D POTENTIAL C ALLEGED
I open drum all INDICATE pot	ential Air contaminat	temproblems. These
inities to a mare towns one.	a aaraa da da alaa waa l	Tresantia Numberes SES
01 D. FIRE EXPLOSIVE CONDITIONS 03 POPULATION POTENTIALLY AFFECTED.	02 D OBSERVED (DATE:) 04 NARRATIVE DESCRIPTION	D POTENTIAL D ALLEGED
These existed priva to a	4 Fire MARSHAll's ORDER	e amo consent
OROER for Cloanup.		
01 DE DIRECT CONTACT 03 POPULATION POTENTIALLY AFFECTED.	02 D OBSERVED (DATE) 04 NARRATIVE DESCRIPTION	
Site is completely fewced	AND locked on 3 sides	The 4th side
15 t steep cliff to the Riner	. Acressibility reny	, limited.
01 T F CONTAMINATION OF SOIL 03 AREA POTENTIALLY AFFECTED (Acres)	02 TOBSERVED (DATE 4-/2-92) 04 NARRATIVE DESCRIPTION	☐ POTENTIAL ☐ ALLEGED
Samples collected by Eur	lugger Environment of or	nsite.
Soil boxings show soi	I contamination.	
01 BG DRINKING WATER CONTAMINATION 03 POPULATION POTENTIALLY AFFECTED ~68	02 D OBSERVED (DATE:) 04 NARRATIVE DESCRIPTION	■ POTENTIAL □ ALLEGED
su Section A	+ B	
01 D H. WORKER EXPOSURE/INJURY 03 WORKERS POTENTIALLY AFFECTED:	02 D OBSERVED (DATE:) 04 NARRATIVE DESCRIPTION	□ POTENTIAL □ ALLEGED
word indicated from	in part retinity. 5	ite is presently
01 ©1. POPULATION EXPOSURE/INJURY 03 POPULATION POTENTIALLY AFFECTED:	02 D OBSERVED (DATE) 04 NARRATIVE DESCRIPTION	D POTENTIAL D ALLEGED
Poss. hility before clean	up by rix Roule +	Surface water.
Presently no potential is		·

\$EPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

L IDENTIFICATION
OF STATE 02 SITE NUMBER
OHD 057 001810

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

M. HAZARDOUS CONDITIONS AND INCIDENTS (Controled)		
01 D J. DAMAGE TO FLORA	02 D OBSERVED (DATE) POTENTIAL C ALLEGED
04 NARRATIVE DESCRIPTION		
Contaminated runaff In on site sail may have co	in site + from aut	the 11 as well as
on site sail may have a	sused Flora dami	age. None absenced.
3 3 3 1 7 1 7 1		•
5.5	22 5 2222 22 22 22	
01 DK. DAMAGE TO FAUNA 04 NARRATIVE DESCRIPTION (Include name(s) of apacies)	02 DBSERVED (DATE) D POTENTIAL D ALLEGED
And the state of t		
None abserve	-d	
7		
01 D L CONTAMINATION OF FOOD CHAIN	02 D OBSERVED (DATE) C POTENTIAL C ALLEGED
04 NARRATIVE DESCRIPTION		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
No Agaicu	Huml on JAAM re	lated activities
715 : 1-1-1-1	a	
This is unlikely. Usb.	AN OCCEAN .	
	> / 9 / /	1/-/2-63
01 TM UNSTABLE CONTAINMENT OF WASTES	02 DOBSERVED (DATE 3/ 1	191727 POTENTIAL D'ALLEGED
(Space Parior) Standing Rouges Learing drims! 03 POPULATION POTENTIALLY AFFECTED: 11, 000/11 1ept K. Ng AMD Publies of W.	NARRATIVE DESCRIPTION DAU	ms were seen onsite
leaking and puddles of in	As to s were samp	led onsite Sample
De 11to al Control	1	ul.
Results of Sail contaminat	ON ALAS INDICATE	
01 A N DAMAGE TO OFFSITE PROPERTY	02 D OBSERVED (DATE:) POTENTIAL CALLEGED
A MADDATRE RECEBIOTION		
Motential Contam	in that of King +	Points downstream
com to minated by site w	AS LES CARRIED A	long.
/		<i>,</i> ,
01 0 CONTAMINATION OF SEWERS, STORM DRAINS, WWTP 04 NARRATIVE DESCRIPTION ON FAIL ON 61 LE	O2 DOBSERVED (DATE 4-/2-	2) D POTENTIAL DALLEGED
of NAHATIVE DESCRIPTION ENTERNY ON FILE	leading to river	was found to be
contamine a fed.	•	!
		J
D1 P ILLEGAL/UNAUTHORIZED DUMPING	02 OBSERVED (DATE 4-12-83) E POTENTIAL E ALLEGED
04 NARRATIVE DESCRIPTION	Pre - 118	3
see scenin M		
	•	
05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLI	EGED HAZARDS PRESENTLY,	NO other hAZARDS
rountified.	/*	,
		·
NI. TOTAL POPULATION POTENTIALLY AFFECTED:	~16000	
IV. COMMENTS		
None		
None		
V. SOURCES OF INFORMATION (Cre specific references e.g. state fies	sample analysis reports;	
5, te suspection, 2-5-86		
ErE Files		1
<u>.</u>		•

	r	74
	H	74
~		

POTENTIAL HAZARDOUS WASTE SITE

I. IDENTIFICATION

SEPA	PART 4 - PERMIT	SITE INS			FORMAT		01 51 ATE 02 5ITE NUMBER 0H0 057 0018/0
II. PERMIT INFORMATION							
01 TYPE OF PERMIT ISSUED (Check of their apply)	02 PERMIT NUMBER	03 DATE	SSUED	D4 EXPIR	ATION DATE	D5 COMMENTS	
A NPDES		↓				L	**·
□B UIC		ļ					
DC AIR						<u> </u>	
D.D. RCRA		1					
DE. RCRA INTERIM STATUS		1					
□ F. SPCC PLAN							
G. STATE (Specify)							
DH. LOCAL (Specify)		1					
DI OTHER (Specify)		1					
■ J NONE	5, te 15	Pres	ent	14	INAC	time N	processes.
III. SITE DESCRIPTION		3	<u> </u>	`7	,		
O1 STORAGE (DISPOSAL (Charle of their arrow)	02 AMOUNT 03 UNIT OF	F MEASURE	D4 TR		Check of their		05 OTHER
PRE CLEANAP D A SURFACE IMPOUNDMENT			١,,,	Pre	cleam	P	
B. PILES			_	NCENER.	ATION ROUND INJE	CTION	A BUILDINGS ON SITE
C. DRUMS, ABOVE GROUND			1 ' '		L/PHYSICA		
D. TANK, ABOVE GROUND				BIOLOGIC			1
☐ E. TANK, BELOW GROUND			DE.V	VASTE O	IL PROCESS	SING	DE AREA OF SITE
D F. LANDFILL			₽ F. S	OLVENT	RECOVERY	1	1 ~1/
G CANDFARM						RECOVERY	/AUM
☐ H. OPEN DUMP	wently vone		■ H. 0	OTHER <u>P</u>	iso	ly wach	٩
07 COMMENTS NONE	7,7	•					1
IV. CONTAINMENT 01 CONTAINMENT OF WASTES; CONCA 600, \[\text{ A ADEQUATE, SECURE} 02 DESCRIPTION OF DRUMS, DIKING, LINERS, \text{ CALL } \(\text{ E F Gras CHE.} \) \text{ Exist author Fanners.}	BARRIERS, ETC. Present			pote fee			RE. UNSOUND, DANGEROUS Amina for suil, A diful anece
V. ACCESSIBILITY		<u>-</u> -					
01 WASTE EASILY ACCESSIBLE: YE	S INO						
01 WASTE EASILY ACCESSIBLE: U YE	S B NO						
VI. SOURCES OF INFORMATION (CAR)	specific references is gi state files, samp	e analysis repo	orts)				
5. to Inspection E+C files.							
			•				

POTENTIAL HAZARDOUS WASTE SITE

E IDENTIFICATION

⇒EPA	PART 5 - WATER	SITE INSPECT R, DEMOGRAPHI			IENTAL DATA	0/4	10057001810
II. DRINKING WATER SUPPLY							
D1 TYPE OF DRINKING SUPPLY (Chock as applicable)		02 STATUS				03	3 DISTANCE TO SITE
SURFACE	B.	ENDANGERE			MONITORED	1	11
COMMUNITY A.	B. D	A. D	B. (C. 🖶	A	. > 4_(ml)
NON-COMMUNITY C. []	D . 🗅	D. 🗅	E. I	0	F.	B .	(mi)
III. GROUNDWATER							
01 GROUNDWATER USE IN VICINITY (CHEEK	•						
IN SOME AREAS Out mostly sufacew	(Other sources available COMMERCIAL, INI	NDUSTRIAL, IRRIGATIO		OMMERCIAL united other source	., INDUSTRIAL, IRRIGAT	PON [D. NOT USED, UNUSEABLE
02 POPULATION SERVED BY GROUND WAT	TER_ ~68	- <u>- '</u>	D3 DISTANC	E TO NE ARE!	ST DRINKING WATER V	WELL	~2.75 (mi)
D4 DEPTH TO GROUNDWATER	05 DIRECTION OF GRO	OUNDWATER FLOW	06 DEFTH TO		07 POTENTIAL YIEL	ا ما	08 SOLE SOURCE AQUIFER
_	1	ward BlackR	OF CONC	ERN	OF AQUIFER		D YES D NO
~ 30 (m)							umanaun.
09 DESCRIPTION OF WELLS Including useage.	/, depth, and location relative to r	population and buildings)	Wells	in the	mea u	4 /n	vstaded into
a combined agus Slightly despen +	ifu system	n of sano ;	·-		ock.	40 N E	?. A few one
O PECHARGE AREA O YES COMMENTS NO	men.		11 DISCHARG	GE AREA COMMENT	its , N to B	·last	h Rnee .
IV. SURFACE WATER							
D1 SURFACE WATER USE (Check one) A RESERVOIR, RECREATION DRINKING WATER SOURCE	IMPORTAN	ON, ECONOMICALLY NT RESOURCES	/ 🗆 C. C	OMMERCIA	IAL, INDUSTRIAL		D. NOT CURRENTLY USED
02 AFFECTED POTENTIALLY AFFECTED BO	ODIES OF WATER					_	
NAME:					AFFECTED		DISTANCE TO SITE
RIEN Pines					_		alianat.
Black River							Adjacent (mi)
LANC ERIL						_	
							(mi)
V. DEMOGRAPHIC AND PROPERTY	Y INFORMATION						
01 TOTAL POPULATION WITHIN				02	2 DISTANCE TO NEARES	ST POPU	/LATION
A - 14 00 0 B	WO (2) MILES OF SITE B ~ 33, 200 NO OF PERSONS		3) MILES OF S 50,000 MO OF PERSONS			- 1	(mi)
03 NUMBER OF BUILDINGS WITHIN TWO (2)) MILES OF SITE	,	D4 DISTANCE	ETO NEARES	ST OFF-SITE BUILDING		
233					200		eet mi
OS POPULATION WITHIN VICINITY OF SITE IN SURROUND ing the	esche is An	n un ban,	INDUST	mimliz	zed one i	mm	edintely
further from 4	he riner	but st,	11 qui	te v	notions a RBAN,	1 m	e zets

POTENTIAL HAZARDOUS WASTE SITE

L IDENTIFICATION

SEPA	PART 5 - WATER, DEMOGRAPH	IION REPORT IIC, AND ENVIRONMENTAL D	ATA 0140 0 5 700 1 810
VI. ENVIRONMENTAL INFORMA		· · · · · · · · · · · · · · · · · · ·	
01 PERMEABILITY OF UNSATURATED 2	ZONE (Check one)		
□ A 10-4 - 10-	-B cm/sec	0 C. 10-4 - 10-3 cm/sec □ D GR	EATER THAN 10 ⁻³ cm/sec
02 PERMEABILITY OF BEDROCK (Check	ane)		
☐ A IMPERI (Less than	MEABLE B B RÉLATIVELY IMPERMEAB 10 ⁻⁶ envisor)	LE D.C. RELATIVELY PERMEABLE (10 ⁻² - 10 ⁻⁴ cm sec)	D. VERY PERMEABLE (Green Hen 10 ⁻² projec)
03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
10-30 m	6_m	~6.0	
D6 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE SITE SLOPE DIRECTION OF	SITE SLOPE TERRAIN AVERAGE SLOPE
(in)	+ Z. Z (in)	23 × Towar west	Prived 7 45
08 FLOOD POTENTIAL unkname	□ SITE IS ON BARR	IER ISLAND, COASTAL HIGH HAZARD	AREA, RIVERINE FLOODWAY
SITE IS IN YEAR FLO			
11 DISTANCE TO WETLANDS 15 acre mine ESTUARINE	OTHER	12 DISTANCE TO CRITICAL HABITAT (6' .	> 3
	_	ENDANGERED SPECIES:	
A. > 3 (mi)	B (mi)	ENDANGERED SPECIES:	- Company
DISTANCE TO COMMERCIAL/INDUSTR A A A COMMERCIAL/INDUSTR 14 DESCRIPTION OF SITE IN RELATION If I SOURCES OF INFORMATION WILL SOURCES OF INFORMATION	B. 23 ITO SURROUNDING TOPOGRAPHY Garge Ga	ERESERVES PRIME (MI) C	AGRICULTURAL LANDS AG LAND 3 (mi) D. 7 3 (mi)
C+E File S	ON (Cire specific references: e.g., state files, sample analysis.	reports/	
Topo-Louin	Ours 7.5 min.		
(

$\mathbf{\Omega}$		
	H	74
	ابط	

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 8 - SAMPLE AND FIELD INFORMATION

1. IDENTIFICATION
OF STATE OF STEEN MARKER
OFFD 05 7001 810

	r,	ART 6 - SAMPLE AND FIELD INFORMATION	7001870
I. SAMPLES TAKEN	· · · · · · · · · · · · · · · · · · ·		
SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVALABLE
GROUNDWATER	·		
SURFACE WATER	3	CRL LABS: TNORGANIC +	~ 10-100 da
WASTE		LTP. New york	
AIR		ORGANICS TO:	
RUNOFF		MADISON, NI.	
SPILL			
SOIL			
VEGETATION			
OTHER			-
. FIELD MEASUREMENTS TA	KEN		
TYPE	02 COMMENTS		
H and	Noth.	NO ZAKED	į
HNY RAO MINI	700 - 1177	Ug > 6 Kg D.	
RAO MINI	• • • • • • • • • • • • • • • • • • • •		
V. PHOTOGRAPHS AND MAPS			
OI TYPE GROUND D AERIAL		02 IN CUSTODY OF Lealegy + ENUIRD NMENT, INC.	
MAPS D4 LOCATION	OF MAPS		
TYES E NO	logyt Envi	comment Files - FUR site & Surround	NG AREA
OTHER FIELD DATA COLLEC	CTED (Provide narrative des	cription)	
FIELD DAS	essent d	oumenting sample locations.	
H -	-6	de de ademination	
ptt, Temp.	TCONDUC	fully of samples.	
		,	
I SOURCES OF INFORMATIO	N (Cae spechic references le	g , state files sample analysis reports!	
S. He gaspectes			
site grisperia	- •		1
			ļ

≎ EPA	F	SITE INSP	COTION DEDODE		FICATION 02 SITE NUMBER 105 700 /8/0
II. CURRENT OWNER(S)		7A917-VW	PARENT COMPANY (Facebook)		
Me+ Mas R. ObiHs		D2 D+B NUMBER	OB NAME VA		D9 D+8 NUMBER
1130 Gulf Ro		04 SIC CODE	10 STREET ADDRESS (P.O. Box. RFD F, sec.)	,	11 SIC CODE
Elyria on name	OG STATE	07 ZIP CODE 44035	12 CITY	13 STATE	14 ZIP CODE
DI NAME	_	02 D+B NUMBER	OB NAME		OP D+B NUMBER
3 STREET ADDRESS (P.O. Box, AFD P. esc.)		04 SIC CODE	10 STREET ADDRESS (P.O. Box. RFD P. MC.)		11 SIC CODE
D5 CITY	DE STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
D1 NAME		02 D+8 NUMBER	OB NAME		09 D+8 NUMBER
D3 STREET ADDRESS (P D Box, RFD P, MC.)		04 SIC CODE	10 STREET ADDRESS (P.G. Box RFD # etc.)		11SIC CODE
DS CITY	O6 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
D1 NAME	· 	02 D+B NUMBER	OB NAME		09 D+B NUMBER
O3 STREET ADDRESS (P D Bos. RFD #, etc.)		04 SIC CODE	10 STREET ADDRESS (P.O. Box. RFD #, etc.)		11 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
ML PREVIOUS OWNER(S) (List most recen	of firest)		IV. REALTY OWNER(S) IF aconcades as	t most recent first)	
un K N v un		02 D+B NUMBER	O1 NAME NA		02 D+B NUMBER
03 STREET ADDRESS (P.D. Box, RFD #, MC.)		04 SIC CODE	03 STREET ADDRESS (P D Box RED # MC)		04 SIC CODE
OE CITY	06 STATE	07 ZIP CODE	D5 CITY	DE STATE	07 ZIF CODE
D1 NAME		02 D+B NUMBER	D1 NAME		02 D+B NUMBER
D3 STREET ADDRESS (P.O Bos. RFD P. MC.)		04 SIC CODE	D3 STREET ADDRESS (P O Box. RFD P. exc.)		04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	O5 CITY	06 STATE	07 ZIP CODE
O1 NAME		02 D+B NUMBER	O1 NAME		02 D+8 NJMBER
D3 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	03 STREET ADDRESS (F O Box RFD F, Mc.)		04 SIC CODE
05CTTY	06 STATE	07 ZIP CODE	os carry	06 STATE	O7 ZIP CODE
V. SOURCES OF INFORMATION ICAR	specific references.	e g , state files, sample analys	us, reports)		<u></u>
INTERVIEW with A	ARS. Obi	H's			
EtE files					

\$EPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

LIDENTIFICATION 01 STATE 02 SITE NUMBER

PART 8 - OPERATION (Provide a Straterial from purper)			TOR INFORMATION OPERATOR'S PARENT COMPANY MADRICAL			
D3 STREET ADDRESS (P.D Box, AFD P, etc.)		D4 SIC CODE	12 STREET ADDRESS (P.O. Box. RFD #.	etc.)	13 SIC CODE	
os CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE	
DB YEARS OF OPERATION OR NAME OF OWNE	A				L	
III. PREVIOUS OPERATOR(S) (LALI MOSI NOCO)	it first, provide only	J Sitterent from burner)	PREVIOUS OPERATORS' PAI	RENT COMPANIES #	applicable)	
Chemical Recovery		02 D+B NUMBER	Chemical Recovery	System	11 D+B NUMBER	
124 Locust St.		04 SIC CODE	12 STREET ADDRESS (PO BOL AFDE) 36345 VAN BORN 14 CITY	etc)	13 SIC CODE	
E / 4 R (A DB YEARS OF OPERATION DB NAME OF OWNE	O6 STATE	07 ZIP CODE 440 35	Romulus	15 STATE MI	16 ZIP CODE 48174	
DB YEARS OF OPERATION DB NAME OF OWNE AR + MAs	R DURING THIS	PERIOD				
Obj Hs Chemical Re Obj Hs Chemical Re OBSTREET ADDRESS (PO BOX. AFD P. AC.)	ujc/ing	02 D+B NUMBER	Samo as op	eratar	11 D+B NUMBER	
03 STREET ADDRESS (P.O. BOX. AFD P. OBC.)	_##	04 SIC CODE	12 STREET ADDRESS (P O Box, RFD F. 6	Hc.J	13 SIC CODE	
OS CITY - Clyria	06 STATE	07 ZIP CODE 44035	14 CITY	15 STATE	16 ZIP CODE	
OB YEARS OF OPERATION OF NAME OF OWNER . MR. + MA	R DURING THE	S PERIOD				
O1 NAME		02 D+B NUMBER	10 NAME	·	11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box. RFD #. HC.)		D4 SIC CODE	12 STREET ADDRESS (P C Bos AFD .	erc)	13 SIC CODE	
05 CITY	D6 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE	
08 YEARS OF OPERATION 09 NAME OF OWNE	R DURING THIS	PERIOD				
IV. SOURCES OF INFORMATION (Can spo	cdic references. B	g state files sample analyse	I reports)			
INTERVIEW with		 				

E+E files

\$EPA	POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 9 - GENERATOR/TRANSPORTER INFORMATION			1. IDENTIFICATION FOR STATE OF SITE NUMBER DHOOS 70018 to	
N. ON-SITE GENERATOR					
O1 NAME		02 D+ B NUMBER		!	
INACHLUE					
03 STREET ADDRESS (P.O. Box. RFD P. etc.)		04 SIC CODE			
05 CITY	D6 STATE	07 ZIP CODE			
HI. OFF-SITE GENERATOR(S)		<u> </u>			
OI NAME		02 D+B NUMBER	O1 NAME		02 D+B NUMBER
D3 STREET ADDRESS (P. D. Box, RFD #, etc.)		04 SIC CODE	D3 STREET ADDRESS (P & BC+ AFC + DIC)		04 SIC CODE
05 CITY	D6 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
O1 NAME		02 D+B NUMBER	D1 NAME		02 D+ B NUMBER
03 STREET ADDRESS (P O Box, RFD F, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 C/TY	OE STATE	07 ZIP CODE
IV. TRANSPORTER(S)		l			L
01 NAME NA		02 D+B NUMBER -	01 NAME		02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, MC.)		04 SIC CODE	03 STREET ADDRESS (P.C. Box, RFD #, etc.)		04 SIC CODE
05 CITY	D6 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
01 NAME		02 D+B NUMBER	D1 NAME		02 D+B NJMBER
03 STREET ADDRESS (P O Box RFD P, Mc.)		04 SIC CODE	03 STREET ADDRESS (F O Box RFD # olc)	·	04 SIC CODE
05 CITY	06 STATE	67 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
V. SOURCES OF INFORMATION (CA	to specific references,	e.g. state ffes: sample analys	a reports)		
E+E files Sile Suspection	لمح ٢.٠	eniu .			

SEPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 10 - PAST RESPONSE ACTIVITIES

L IDENTIFICATION
01 STATE 02 SITE NUMBER
0HD 057001810

	1 10 - PAST RESPUNSE A	CHALLES	
II. PAST RESPONSE ACTIVITIES			
01 D A WATER SUPPLY CLOSED 04 DESCRIPTION	92 DATE	03 AGENCY	
more INDICAS	to A		
01 D B TEMPORARY WATER SUPPLY PROVIDED 04 DESCRIPTION	02 DATE	03 AGENCY	
mone in Di	cated.		
01 C. PERMANENT WATER SUPPLY PROVIDED 04 DESCRIPTION	02 DATE	03 AGENCY	
none in			
01 & D. SPILLED MATERIAL REMOVED		UNK. DE AGENCY 45	
04 DESCRIPTION CHEMICALS From le site cleanup unde	a consent under	、 ,	
01 B E CONTAMINATED SOIL REMOVED	02 DATE UN	K 03 AGENCY _ U	SEPA
		aut of the consent	
01 DF. WASTE REPACKAGED 04 DESCRIPTION 14-5 PART of the cl	02 DATE und	03 AGENCY <u>U.S</u>	EPA
FUR & Proposed ELSEWHERE	EPA Approved 4	+HRIA'S AND ALPA	ERAGES .
01 B G. WASTE DISPOSED ELSEWHERE	02 DATE CON	Je. O3 AGENCY US	EPA
64 DESCRIPTION WASTES WORK & result of a correct	TAKEN TO A W	1588A Approved LF a	s the
01 - H. ON SITE BURIAL	V- V///	03 AGENCY	
04 DESCRIPTION None, wol	cated on abse		
01 DI. IN SITU CHEMICAL TREATMENT 04 DESCRIPTION Nothing, Nota Lea C 01 DJ. IN SITU BIOLOGICAL TREATMENT	OZDATE NA WAS AWAS	og agency we see reclaim facility	Ly but Mond
01 D.J. IN SITU BIOLOGICAL TREATMENT	DATAMINA PLON	WAS BOATED arm	, this method.
04 DESCRIPTION A A			
01 & K IN SITU PHYSICAL TREATMENT	02 DATE _ 6m-	D3 AGENCY USE	PA
04 DESCRIPTION Removal of soil Proces equip.	a AND WASH	es onethe Aswella	-s all
01 D L ENCAPSULATION	02 DATE	03 AGENCY	
	nam		-
01 D M. EMERGENCY WASTE TREATMENT	02 DATE	03 AGENCY	
04 DESCRIPTION	······································		
01 D N CUTOFF WALLS	02 DATE	03 AGENCY	
04 DESCRIPTION None who	served on ino	icated in vecase	h
01 D O EMERGENCY DIKING SURFACE WATER DIVER	ISION 02 DATE	03 AGENCY	
04 DESCRIPTION			
01 G P CUTOFF TRENCHES/SUMP	02 DATE	03 AGENCY	
04 DESCRIPTION work also	remed or , w	diested in record	6
01 D O SUBSURFACE CUTOFF WALL		03 AGENCY	
04 DESCRIPTION Les section	P		

\$EPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 10 - PAST RESPONSE ACTIVITIES

L IDENTIFICATION

01 STATE 02 SITE NUMBER

0 HD 05700 1810

H PAST RESPONSE ACTIVITIES	(Continued)		
01 DR BARRIER WALLS COM	NSTRUCTED	02 DATE	03 AGENCY
04 DESCRIPTION	none		
01 D S. CAPPING COVERING		02 DATE	03 AGENCY
04 DESCRIPTION	un banna		
01 # T. BULK TANKAGE REP			03 AGENCY USEPAV FIRE Marsh
VIOLATIONS.	TANKS were and	more!	to Fire hazard
D1 D U GROUT CURTAIN CO	NSTRUCTED	02 DATE	03 AGENCY
04 DESCRIPTION		ated in filos a	
01 D V. BOTTOM SEALED		02 DATE	03 AGENCY
OA DESCRIPTION	. 1		03 AGE/101
· · · · · ·) A		j
01 D W GAS CONTROL		02 DATE	03 AGENCY
04 DESCRIPTION	NA		
	, - , - , - , - , - , - , - , - , - , -		
01 ■ X FIRE CONTROL		02 DATE 3/9/	03 AGENCY USEPA + FIRE MARSHA
04 DESCRIPTION 5, te	meratan ardered	by Fine MADELAN	O3 AGENCY USEPH + FIRE MARSHA to carect numerous lequip ment removed, O3 AGENCY
Fine code viol	A LONS. SILO M	in markup & Al	1 comia ment romand
O1 CLY LEACHATE TREATME	ENT	D2 DATE	03 AGENCY
04 DESCRIPTION	me indicated o	- showed	
~~	THE POLICE OF		
01 D Z. AREA EVACUATED		02 DATE	03 AGENCY
04 DESCRIPTION	unhuma.		
01 1 1. ACCESS TO SITE RES	STRICTED	02 DATE unde	O3 AGENCY M & C/A
04 DESCRIPTION Requi	eit to complete	fenceny arous	A thefacility to
nene	* Access, 6AY	E locked even.	new,
01 D 2 POPULATION RELOC	ATED	OZ DATE	03 AGENCY
D4 DESCRIPTION	unknam		
01 3 3. OTHER REMEDIAL AND 04 DESCRIPTION		02 DATE und.	
Sene	rul 5pill , wei	cents were A	iner. They, welleded.
OEPA +	Dent. al Health	, to the Black R	ines The walled
all cal	to make a colorado	Il. PCR + -	1017"0
0.4	Handley JARNY	TIG , CO COMA	MINATRA, BOOMS WILL
placed in y	rwwater.		
			i
I			
l			
	•		i
i			_!
HI. SOURCES OF INFORMATION	V (Cre specific references, e.g., state files, sample	e analysis (reports)	
			
E+E files.			
ĺ			!
			i
Ī.			



POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 11 - ENFORCEMENT INFORMATION

L IDENTIFICATION

OF STATE 02 SITE NUMBER

O 140 057 001810

N. ENFORCEMENT INFORMATION

01 PAST REGULATORY/BNFORCEMENT ACTION WYES DINO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

See a Hacked information. (Section 3)
ATTACHMENT 1
This is Civil Action brought by USERA,

dro State Frie Moushall declared site Frie MAZARD, prim to cleanup.

III. SOURCES OF INFORMATION (Cre-specific references, e.g., state files, aample analysis, reports)

E+E files.

Immediate Removal Action Check Sheet (Resent Conduction)

Fire and Explosion Hazard	High	Moderate	Low
Flammable Materials more			×
Explosives			*
Incompatable Chemicals			*
Direct Contact with Acutely Toxic Chemicals			
Site Security yes			×
Leaking Drums or Tanks materially			\
Open Lagoons or pits			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Materials on Surface possible contamin.	!		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Proximity of Population < ½ nule	,	*	
Evidence of Casual Site Use more	 		×
Contaminated Water Supply			
Exceeds 10 Day Snarl)		Y
Gross Taste or Odorsfinn &	16)		\ \
Alternate Water Available			\ \ \ \
Potential Contamination wone			×
Is the site abandoned or active? 5, te in active			

Comments

5, te has had past mobilem but has been scleaned up as the result of a consentander from a stappe.



United States Attorney Northern District of Ohio

Suite 500 1404 East Ninth Street Cleveland, Ohio 44114

July 25, 1983

Paul J. Schaeffer U. S. Department of Justice Land and Natural Resources Division Hazardous Waste Section, Rm 1515, MAIN Washington, D. C. 20530

> Re: U. S. v. Chemical Recovery Systems, Inc., et al. Civil Action No. C80-1858 Judge Dowd

Dear Mr. Schaeffer:

In reference to the above-captioned case, enclosed please find a copy of an Order issued by Judge Dowd.

Sincerely yours,

J. WILLIAM PETRO, UNITED STATES ATTORNEY

Kathleen Ann Sutula Assistant U. S. Attorney

(FIS) 942-4394

KAS/fv

Enclosure

Jonathan McPhee cc:

Deborah Woitte

DOWD, J.

RECEIVED

FILED

JUL 25 10 42 AM 183

1333 JUL 22 AM 9: 18

UNITED TSTATES DISTRICT CREATERN DISTRICT OF CHIO

EASTERN DIVISION

United States of America,

Plaintiff,

vs.

Chemical Recovery Systems, Inc., et al.,

Defendants, and Third Party Plaintiffs,

vs.

ORDER

CASE NO. C80-1858

Russell W. Obitts, et al.,
Third Party Defendants.

A status call was held on this matter on July 12, 1983. Counsel for the United States Government and counsel for the defendant Chemical Recovery Systems advised the Court that a proposed consent decree has been submitted by the government to counsel for Chemical Recovery Systems and its approval for presentation to the Court should be made within several weeks.

Accordingly, IT IS HEREBY ORDERED, ADJUDGED, and
DECREED that counsel for the plaintiff, the United States
Government and the defendant, Chemical Recovery Systems,
Inc., are directed to file the proposed consent decree with

the Court by August 12, 1983 or show cause why there has been a failure to do so. Counsel for the third party plaintiff, Chemical Recovery Systems, Inc., and counsel for the third party defendants, Russell W. Obitts and Dorothy Obitts, are directed to appear for an additional status call with respect to the third party action at 8:30 a.m. on October 6, 1983.

David D. Dowd, Jr. U. S. District Judge

NORTHERN DISTRICT OF OHIO EASTERN DIVISION

UNITED STATES OF AMERICA,) NO. C80-1858
Plaintiff,	\(\)
v.	}
CHEMICAL RECOVERY SYSTEMS, INC.,) CONSENT DECREE
Defendant.) CONSENT DECREE

The above-captioned Complaint having been filed pursuant to 33 U.S.C. §1251 et seq. and 42 U.S.C. §6901 et seq. on October 7, 1980, and the parties, the UNITED STATES OF AMERICA, for the Administrator of the United States Environmental Protection Agency (hereinafter "U.S. EPA") and CHEMICAL RECOVERY SYSTEMS, INC., an Ohio corporation, (hereinafter "CRS") by their respective attorneys having consented to the entry of this Consent Decree:

NOW, THEREFORE, before taking any testimony, upon the pleadings, and without admission or adjudication of any issue of fact or law herein, and upon consent of the parties hereto, it is hereby ORDERED, ADJUDGED, AND DECREED as follows:

I. JURISDICTION

This Court has jurisdiction over the parties and subject matter of this action.

II. APPLICATION OF DECREE

This Decree shall apply to and be binding upon the United States and CRS (the Parties), and the successors and assigns of each, as well as any agencies, instrumentalities, officers, directors, agents and servants thereof acting in their respective official capacities. CRS shall provide a copy of this Decree to each contractor it retains to perform work contemplated in this Decree and shall condition any contract for such work on compliance with this Decree and applicable provisions of the approved plans as contemplated in this Decree. A copy of this Decree shall be lodged with the Recorder of Deeds for Lorain County, Ohio, to provide notice of the history of this Site to prospective purchasers of the CRS site located on 146 Locust Street, Elyria, Ohio (hereinafter "site").

III. OBJECTIVES

The objectives of the parties to this Decree are the abatement of any hazardous conditions at the CRS Site which may have existed both before and after CRS took title to the premises, and the abatement of discharges of contaminants, if any, into groundwater and the Black River from the CRS site.

IV. REPRESENTATIONS

CRS represents that it has, as of the entry of this Decree:

- A. Removed all tanks, drums and other spent solvent containers from the Site;
- B. Ceased the receipt, processing and storage of spent solvents on Site;

- C. Removed all temporary structures, the Brighton Still and the building which housed it as well as the Rodney Hunt Still, all storage tanks and all buildings except the upper warehouse;
- D. Secured the CRS Site by completing the existing fence so as to enclose the facility on all sides except the riverbank in order to prevent access by unauthorized persons;
- E. Filled in the sump under the Brighton Still building and sealed the sump under the Rodney Hunt Still building with concrete;
- F. Conducted soil testing and groundwater studies;
- G. Leveled dikes and rough graded selected areas.

V. REMEDIAL MEASURES

- A. On or before August 15, 1983, CRS shall:
 - Jointly conduct a visual inspection of the site with U.S
 EPA technical personnel, to identify spots of visibly
 contaminated soil if any. CRS shall give 10 working
 days notice of the date of this inspection to U.S. EPA.
 U.S. EPA may take samples of such soil for analysis.
 - Excavate all visibly contaminated soil identified by the above inspection;
 - 3. Excavate the perimeter of the Brighton Still building in the northwest corner of the Site, to a depth of one foot, and to a distance of two feet beyond the perimeter of the foundation;
 - Dispose of all soil removed in these excavations in an
 U.S. EPA approved waste disposal site;

- 5. Backfill the excavated areas with clean clay-containing fill, as necessary, and grade to conform with existing terrain;
- 6. Gently grade the Site towards the river bank to a slope of approximately three percent (3%).
- B. At the next horticulturally appropriate time, CRS will seed the Site with appropriate grasses.
- C. CRS will conduct monitoring of the Black River adjacent to the Site a total of at least four times following entry of this Decree, for the following chemicals, PCBs and volatile organics listed in 40 C.F.F. §116.4, pursuant to §311(b) to (A) of the Clean Water Act, on the following basis:
 - 1. Each monitoring shall consist of at least three samples, one of which is to be taken at the outfall from the sewer at CRS, and one downstream from the said outfall. The location of the third sample shall be determined by CRS. Both river samples shall be depth-integrated composites.
 - 2. All sampling and analysis shall be conducted according to U.S. EPA protocols, copies of which shall be provided upon request, and at a qualified laboratory, identified in advance to U.S. EPA.
 - 3. Sampling shall take place once each spring, during the first period of intensive melting of snow, or within 48 hours of the first rainfall of one inch or more after March 1, whichever occurs first; and once each fall,

within 48 hours after the first rainfall of one inch or more following August 15; for two years next following entry of this Decree. At least 8 hours' notice of each said sampling shall be given to the Eastern District Office of U.S. EPA by telephone (216-835-5200).

4. All sample results shall be conveyed to U.S. EPA in writing within ten days of their receipt by CRS.

VI. RESPONSIBILITIES AND LIABILITIES

- A. CRS is ultimately responsible for designing and implementing all remedial measures. No advice, guidance, suggestions or comments by U.S. EPA on plans and reports submitted by CRS shall be construed to relieve CRS of this responsibility or transfer any of CRS' liability or obligation in this action to EPA.
- B. Upon completion of the activities required in paragraph V of this Decree, CRS shall submit a notice to the Director, Waste Management Division, Region V, U.S. EPA, certifying that such measures have been completed in full satisfaction of the requirements of this Decree.
- C. Whenever, under the terms of this Decree, a report or other document is required to be forwarded by one Party to another, it shall be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice in writing to the other Party of another individual designated to receive such communications. Reports or documents shall be provided as to U.S. EPA:

Director, Waste Management Division United States Environmental Protection Agency Region V (5HR) 230 South Dearborn Street Chicago, Illinois 60604

As to CRS:

Chemical Recovery Systems, Inc. c/o David C. Long Suite 175 24500 Center Ridge Road Westlake, Ohio 44145

- D. Until termination of the provisions of this Consent Decree, ant thereafter in accordance with applicable law, the U.S. EPA, its contractors and consultants, shall have authority to enter the CRS site at all reasonable times with prior notice to CRS, for the purpose of (1) monitoring the progress of CRS in carrying out remedial measures, and (2) observing sampling procedures required under paragraph V of this Decree. U.S. EPA, its contractors, and consultants shall have the authority to require split samples in any such sampling procedure.
- E. All actions required to be taken by this Decree shall be undertaken in compliance with the requirements of applicable federal laws, including the Occupational Safety and Health Act, 29 U.S.C. 651 et seq., and regulations promulgated thereunder.
- F. All data, information, remedial plans, and other documents produced by CRS in the course of implementing this Consent

 Decree shall be available to the public, unless identified as confidential by CRS in conformance with 40 C.F.R. Part 2.

 The sampling and monitoring data and hydrological and geological

information shall not be considered confidential. Documents or information identified as confidential will be disclosed only in accordance with the confidentiality regulations of 40 C.F.R. Part 2.

G. No conveyance of title, easement, or other interest in the site shall be consummated by CRS or subsequent holders of any interest in the property without written notice to U.S. EPA and notice to the prospective conveyee as to the conditions of this Consent Decree. After completion of the requirements of this Consent Decree, the copy of the consent decree lodged with the Lorain County Recorder of Deeds shall constitute adequate notice to prospective conveyees for purposes of this Decree.

VII. EXCUSABLE DELAY

The requirements of this Decree shall be implemented within the time limits contained in this Decree unless such performance is impeded by reasons which constitute excusable delay or unavoidable accident. "Excusable delay or unavoidable accident" is any delay in the completion, scheduling, or performance of a particular task, which arises from unforeseeable events beyond the control and without fault or negligence of CRS. CRS shall notify U.S. EPA within 24 hours of the occurrence or discovery of any such event, and submit a proposed revised schedule for compliance. U.S. EPA may then agree to excuse or permit delay of such compliance. If U.S. EPA does not so agree, CRS may petition the Court for an excuse or a delay.

VIII. MODIFICATIONS

The Court shall retain jurisdiction of this matter for the purposes of enabling the Parties to this Decree to apply to the Court for any further order that may be needed to construe, carry out, modify, or enforce compliance with the terms and objectives of this Decree until the termination of this Decree in accordance with the provisions of paragraph X.

IX. STIPULATED PENALTIES

Upon demand by U.S. EPA and upon the appropriate Motion and Order of this Court, CRS shall pay to the United States an amount not to exceed one thousand five hundred dollars (\$1,500) per day for each day that it fails to comply with the provisions of this Consent Decree. In exercising its discretion in seeking to have the Court impose a penalty hereunder, U.S. EPA shall take into account the magnitude of the violation, the duration of the violation, and any mitigating factors.

X. TERMINATION

The provisions of this Consent Decree shall terminate upon CRS' receipt of written notice from U.S. EPA that the remedial and monitoring provisions of this Decree have been successfully completed. Such notice shall issue within 60 days of the date that CRS performs the last act required of it by this Decree and so informs U.S. EPA unless the court orders otherwise.

XI. EXCEPTIONS AND RESERVATIONS

This Consent Decree shall in no way affect any third party actions existing as a part of this lawsuit, nor shall this Decree be construed so as to affect the rights or duties of the parties under the Comprehensive Environmental Response, Compensation and Liability Act. 42 U.S.C. §9601, et seq..

XII.		ENT	<u>rry</u>				
ıt	to	the	entry	of	this	Consen	

The Parties hereby consent to	the entry of this Consent Decree.
Dated and entered this	
	UNITED STATES DISTRICT JUDGE
The Parties agree and consent	hereto.
	F. HENRY HABICHT, II Acting Assistant Attorney General
	Land and Natural Resources Division
	United States Department of Justice Washington, D.C. 20530
	J. WILLIAM PETRO United States Attorney
	Northern District of Ohio
	Cleveland, Ohio

PAUL J. SCHAEFFER Department of Justice Washington, D.C.

COURTNEY M. PRICE
Special Counsel for Enforcement
U.S. EPA
Washington, D.C.

VALDAS V. ADAMKUS
Regional Administrator
U.S. EPA Region V
Chicago, Illinois

DAVID C. LONG

Attorney for Chemical Recovery Systems

CHEMICAL RECOVERY SYSTEMS, INC.

By: Peter J. Shagena

Secretary

Table 1a. Inorganic analyses of soils on 8/4/81 and 8/5/81, in ppm

	Boring# / Sample #						
·	5-1	5-2	5-3	6-1	6-2	6-3	
Compounds / Depth	0-1.5'	2.5-4'	5-6.5'	0-1.5'	2.5-4'	5-6.5'	
Aluminum	3400	1300	2000	3500	880	1/900	
Boron	14	47	ND	ND	ND	17	
Barium	83	16	24	63	43	180	
Chromium	3.2	ND	ND	39	ND	99	
Cobalt	ND_	10	14	24	14	350	
Copper	300	150	14	51	14	1800	
Iron	3900	2100	1900	3600	2100	4200	
Manganese	300	120	140	450	340	360	
Nickel	28	ND	ND	7.8	ND	42	
Zinc	6100	540	990	240	50	620	
Arsenic	3.3	1.5	1.5	4.7	1.6	41	
Cadmium	14	ND	ND	24	6.2	680	
Mercury	ND	ND	ND	ND	ND	ND	
Lead	200	48	48	240	83	1100	
Antimony	ND	ND	ND	3.0	15	69	
Selenium	ND	ND	ND	ND	ND	1.0	
Tin	2.1	3.2	3.9	ND	ND	2.2	

Table continued

•.	Boring# / Sample #						
	6-4	7-1	7-2	7-5	8-1	8-2	
Compounds / Depth	10-11.5'	0-1.5'	2.5-4	15-16.5'	0-1.5'	2.5-4'	
Aluminum	3800	3500	1000	1300	1600	1200	
Boron	12	ND	12	ND	ND	ND	
Barium	63	37	170	88	54	37	
Chromium	3.2	88	120	130	2.7	ND	
Cobalt	ND	56	34	6.5	ND	ND	
Copper	14	190	120	42	18	22	
Iron	2200	3700	2600	5800	5600	4400	
Manganese	97	360	280	42	220	280	
Nickel	ND	23	46	88	ND	ND	
Zinc	550	310	320	210	67	29	
Arsenic	1.3	4.4	7.2	15	1.3	1.2	
Cadmium	120	33	18	7.7	1.1	2.5	
Mercury	ND	ND	ND	ND	ND	ND	
Lead	1600	350	860	83	95	33	
Antimony	ND	11	32	ND	ND	ND	
Selenium	ND	ND	ND	ND	ND	ND	
Tin	ND	ND	2.8	3.7	ND	ND	

Table continued

	Boring# / Sample #						
	8-3	8-4	8-5	9-1	9-2		
Compounds / Depth	5-6.5'	10-11.5'	15-16.5	0-1.5'	2.5-41		
Aluminum	1600	3400	3400	640	400		
Boron	30	20	13	ND	ND		
Barium	21	38	16	77	ND		
Chromium	2.7	4.5	ND	9.5	ND		
Cobalt	8.1	12	ND	ND	ND		
Copper	19	33	7.5	26	ND		
Iron	3000	4800	5400	2400	3600		
Manganese	160	190	210	750	400		
Nickel	7.9	10	8.8	13	ND		
Zinc	53	130	16	41	3.5		
Arsenic	1.7	1.3	2.7	11	ND		
Cadmium	3.3	3.1	0.34	11	ND		
Mercury	0.023	0.025	ND	ND	ND		
Lead	68	64	16	47	9.8		
Antimony	ND	ND	ND	ND	ND		
Selenium	ND	ND	ND	ND	ND		
Tin	ND	ND	8.0	ND	ND		

Table Z. Organic analyses of the Black River sediment, 9/16/82, in ppb

	Sediment			
Compounds	SS-1	SS-2	ss-3	SS-4
Methylene Chloride	60	40	4800	40
Trichlorofluoromethane	ND	ND	10	10
Chloroethane	ND	ND	130	ND
1,1 Dichloroethane	ND	ND	590	ND
1,1,1 Trichloroethane	ND	ND	1500	ND
Vinyl Chloride	ND	ND	130	ND
1,1 Dichloroethane	ND	ND	20	ND
1,2 Transdichloroethylene	ND	ND	2100	ND
Trichloroethylene	ND	ND	530	ND
Tetrachloroethylene	ND	ND	580	ND
Benezene	ND	ND	10	ND
Toluene	ND	ND	4900	ND
Ethyl Benzene	ND	ND	4600	10
Phenol	ND	ND	340	ND
1,2 Dichlorobenzene	ND	ND	280	ND
PCB - Total	ND	ND	140	ND
Butylbenzlphthalate	ND	220	<220	ND
Di-N-Octyl Phthalate	ND	ND	220	ND
Bis(2 Ethyl Hexyl) Phthalate	ND	300	4000	1100
Naphthalene	ND	ND	640	ND
Acenaphthene	<200	ND	<200	ND
Chrysene/Benzo(a)Anthracene	4100	2100	4800	2700
Pyrene	3600	1500	ND	1200
Fluoranthene	4600	1900	3500	1400
Benzo(a)Pyrene	3400	2900	4000	1000
Benzo(k)Fluoranthene	3700	3100	4500	1200
Anthracene/Phenanthrene	3000	1500	3000	840
Fluorene	200	<200	<200	ND
Benzo(ghi)Perylene	1300	1500	300	410
Dibenzo(a,h)Anthracene	<500	<500	680	ND
Indeno(1,2,3-cd)Pyrene	1000	1300	2300	410

Table **2a**. Inorganic analyses of the Black River sediment on 9/16/81, in ppb

•		Sedi	ment		
	SS-1	SS-2	SS-3	SS-4	
Aluminum	5,600,000	1,200,000	2,700,000	2,000,000	
Chromium	6,600	14,000	79,000	12,000	
Barium	35,000	140,000	160,000	89,000	
Beryllium	ND	ND	ND	ND	
Cadmium	ND	ND	32,000	6,100	
Cobalt	11,000	7,100	29,000	10,000	
Copper	7,200	11,000	350,000	6,900	
Iron	1,900,000	2,600,000	3,800,000	3,100,000	
Lead	84,000	49,000	190,000	52,000	
Nickel	11,000	22,000	400,000	32,000	
Manganese	1,300,000	160,000	490,000	190,000	
Zinc	81,000	50,000	480,000	67,000	
Boron	ND	ND	22	ND	
Vanadium	ND	ND	ND	ND	
Calcium	NA	NA	NA	NA	
Magnesium	NA	NA	NA	NA	
Sodium	NA	NA	NA	NA	
Arsenic	4,800	ND	3,800	1,600	
Antimony	ND	ND	ND	ND	
Selenium	ND	ND	ND	ND	
Thallium	ND	ND	1,400	ND	
Mercury	ND	ND	ND	ND	
Tin	ND	ND	ND	ND	
Silver	3,200	ND	6,800	ND	

Site Hydrology (continued)

$$Q = (K) \times (\frac{dh}{dl}) \times (A)$$

where, Q = flow rate

 $\frac{dh}{dl} = \text{hydraulic gradient, or 0.05}$

A = cross-sectional area perpendicular to flow, or 1600 feet²

 $K = permeability, 1 \times 10^{-4} cm/sec or 100 ft/year$

based on the above data:

$$Q = (100 \text{ ft/yr}) \times (0.05) \times (1600 \text{ ft}^2)$$

 $Q = 8,000 \text{ ft}^3/\text{yr} \text{ or } 59,800 \text{ gal/yr}$

This is the flow rate of ground water entering into the Black River from that portion of the CRS site affected by dumping.

A similar calculation for ground water velocity, V, can be made with the following equation:

$$V = (K) \times (\frac{dh}{dl}) \times \frac{1}{Ne}$$

where, V = velocity

Ne = effective porosity, or .15

this yields,

$$V = (100 \text{ ft/yr}) \times (0.05) \times (1/.15)$$

V = 33 ft/yr

This is the velocity at which ground water moves at the site.

Table 3. Organic analyses of the E&E wells, in ppb

	-		Downgradi	ent Wells		Upgradie	nt Wells
		Wel	1 #1	Wel	1 #2	Well #3	Well #4
_	Compounds	8/5/81	9/16/81	8/5/81	9/16/81	9/16/81	9/16/81
	Methylene Chloride	71,000	NA	6500	ND	ND	ND
1	l,l Dichloroethane	ND	NA	5300	ND	ND	ND
1	l,1,1 Trichloroethane	12,000	NA	2200	ND	ND	ND
	Vinyl Chloride	ND	NA	ND	1000	ND	ND
	1,1 Dichloroethylene	ND	NA	ND	1900_	ND	ND
V	1,2 Transdichloroethylene	6100	NA	10,000	1000	ND	ND
1	Trichloroethylene	6300	NA	ND	ND	ND	ND
1	Benzene	1100	NA	1900	1000	ND	ND
1	Toluene	100,000	NA	4500	3000	ND	ND
L	Ethyl Benzene	14,000	NA	ND	ND	ND	ND
L	Phenol	590	NA	19	ND	ND	ND
	2,4 Dimethylphenol	45	NA	<10	ND	ND	ND
1	1,2 Dichlorobenzene	ND	NA	<10	ND	ND	ND
L	Pentachlorophenol	ND	NA	16	ND	ND	ND
L	PCB-1248	29	NA	<0.1	ND	ND	ND
L	PCB-1254	18	NA	<0.1	ND	ND	ND
L	Dimethyl Phthalate	<10	NA	ND	ND	ND	ND
1	Diethyl Phthalate	ND	NA	<10	ND	ND	ND
	Di-N-Butyl Phthalate	<10	NA	ND	ND	ND	ND
	Butyl Benzl Phthalate	27	NA	<10	ND	ND	ND
i L	Bis(2 Ethyl Hexyl) Phthalate	27	NA	<10	ND	ND	ND
1	Naphthalene	130	NA	29	ND	ND	ND
	Chrysene/Benzo(a)Anthracene	<10	NA	<10	ND	ND	ND
	Pyrene	<10	NA	<10	ND	ND	ND
	Fluoranthene	<10	NA	<10	ND	ND	ND
L	Benzo(a)Pyrene	<10	NA	11	ND	ND	ND
	Benzo(k)Fluoranthene	<10	NA	<10	ND	ND	ND
L	Anthracene/Phenanthrene	<10	NA	<10	ND	ND	ND
	Fluorene	<10	NA	ND	ND	ND	ND
L	2-Chloronaphthalene	<10	NA	ND	ND	ND	ND

Table 3a. Inorganic analyses of E&E wells, in ppb

			 			
-	Upgradie	nt Wells	Downgradient Wells			s
	W-3	W-4	W-1		W	-2
Compounds	9/16/81	9/16/81	8/5/81	9/16/81	8/5/81	9/16/81
Aluminum	4200	3100	136,000	110,000	347,000	86,000
Chromium	490	300	1620	2500	910	790
Barium	ND	ND	164	1100	2740	1100
Beryllium	ND	ND	8	ND	14	ND
Cadmium	ND	ND	300	820	195	ND
Cobalt	ND	ND	280	ND	330	ND
Copper	ND	ND	1000	1700	1340	670
Iron	8400	4700	276,000	210,000	926,000	ND
Lead	580	600	840	2500	1160	1100
Nickel	ND	ND	460	1000	1040	820
Manganese	13,000	4000	6560	7400	1980	14,000
Zinc	13,000	4200	4550	8600	7040	5100
Boron	NA	NA	1450	NA	740	NA
Vanadium	ND	ND	290	ND	640	ND
Calcium	NA	NA	742,000	NA	521,000	NA
Magnesium	NA	NA	125,000	NA	240,000	NA
Sodium	NA	NA	597,000	NA	250,000	NA
Arsenic	ND	ND	700	310	400	140
Antimony	ND	ND	70	ND	ND	ND
Selenium	ND	ND	ND	ND	ND	ND
Thallium	ND	ND	ND	ND	ND	ND
Mercury	ND	ND	ND	ND	3	ND
Tin	ND	ND	120	ND	100	ND
Silver	ND	ND	ND	ND	ND	ND

Organic analyses of the Black River surface water, 9/16/82, in ppb

-	Surface Water			
Compounds	SW-1	SW-2	sw-3	SW-4
Methyl Chloride	ND	34	ND	ND
Methylene Chloride	12	ND	8500	72
Chloroform	ND	ND	<10	ND
Carbon Tetrachloride	ND	ND	<10	ND
Dichlorobromomethane	ND	ND	<10	ND
Chloroethane	ND	ND	11	ND
l,l Dichloroethane	ND	ND	52	ND
l,l,l Trichloroethane	ND	ND	320	ND
Vinylchloride	ND	ND	100	ND
l,2 Transdichloroethylene	ND	ND	ND	<10
Trichloroethylene	ND	ND	1000	ND
Tetrachloroethylene	ND	ND	420	ND
Benzene	ND	ND	15	ND
Toluene	ND	ND	15	ND
l,2 Dichlorobenzene	<10	<10	140	<10
1,3 Dichlorobenzene	ND	ND	29	ND
2,4 Dichlorophenol	74	11	14	12
2,4,6 Trichlorophenol	59	ND	ND	<10
1,4 Dichlorobenzene	ND	ND	37	ND
Diethyl Phthalate	<10	<10	<10	<10
Bis(2 Ethyl Hexyl) Phthalate	18	<10	ND	ND
Naphthalene	ND	ND	<10	ND

Table 4a. Inorganic analyses of the Black River surface water on 9/16/81, in ppb

-		Surface Water						
· Compounds	SW-1	SW-2	SW-3	SW-4				
Aluminum	550	1800	200	400				
Chromium	ND	ND	ND	ND				
Barium	50	90	140	60				
Beryllium	ND	ND	ND	ND				
Cadmium	ND	ND	20	ND				
Cobalt	ND	ND	ND	ND				
Copper	ND	40	40	ND				
Iron	900	2660	1660	620				
Lead	ND	ND	ND	ND				
Nickel	ND	ND	1890	20				
Manganese	100	130	450	80				
Zinc	ND	30	80	20				
Boron	80	90	140	90				
Vanadium	ND	ND	ND	ND				
Calcium	67,900	68,500	86,400	70,100				
Magnesium	18,200	18,100	19,100	18,700				
Sodium	23,000	23,400	39,200	24,000				
Arsenic	ND	ND	ND	ND				
Antimony	ND	ND	20	ND				
Selenium	ND	ND	10	ND				
Thallium	ND	ND	50	ND				
Mercury	ND	ND	ND	ND				
Tin	ND	ND	ND	ND				
Silver	ND	ND	ND	ND				

Table Inorganic analyses of the Black River sediment on 9/16/81, in ppb

		Sedi	ment					
	SS-1	SS-2	SS-3	SS-4				
Aluminum	5,600,000	1,200,000	2,700,000	2,000,000				
Chromium	6,600	14,000	79,000	12,000				
Barium	35,000	140,000	160,000	89,000				
Beryllium	ND	ND	ND	ND				
Cadmium	ND	ND	32,000	6,100				
Cobalt	11,000	7,100	29,000	10,000				
Copper	7,200	11,000	350,000	6,900				
Iron	1,900,000	2,600,000	3,800,000	3,100,000				
Lead	84,000	49,000	190,000	52,000				
Nickel	11,000	22,000	400,000	32,000				
Manganese	1,300,000	160,000	490,000	190,000				
Zinc	81,000	50,000	480,000	67,000				
Boron	ND	ND	22	ND				
Vanadium	ND	ND	ND	ND				
Calcium	NA	NA	NA	NA				
Magnesium	NA	NA	NA	NA				
Sodium	NA	NA	NA	NA				
Arsenic	4,800	ND	3,800	1,600				
Antimony	ND	ND	ND	ND				
Selenium	ND	ND	ND	ND				
Thallium	ND	ND	1,400	ND				
Mercury	ND	ND	ND	ND				
Tin	ND	ND	ND	ND				
Silver	3,200	ND	6,800	ND				

Table Inorganic analyses of soils on 8/4/81 and 8/5/81, in ppm

		· · · · · · · · · · · · · · · · ·	Doni4	/ 01-	л	
			Boring#	/ Sample	1 F	·
	5-1	5-2	5-3	6-1	6-2	6-3
Compounds / Depth	0-1.5'	2.5-4'	5-6.5'	0-1.5'	2.5-4'	5-6.51
Aluminum	3400	1300	2000	3500	880	1900
Boron	14	47	ND	ND	ND	17
Barium	83	16	24	63	43	180
Chromium	3.2	ND	ND	39	ND	99
Cobalt	ND	10	14	24	14	350
Copper	300	150	14	51	14	1800
Iron	3900	2100	1900	3600	2100	4200
Manganese	300	120	140	450	340	360
Nickel	28	ND	ND	7.8	ND	42
Zinc	6100	540	990	240	50	620
Arsenic	3.3	1.5	1.5	4.7	1.6	41
Cadmium	14	ND	ND	24	6.2	680
Mercury	ND	ND	ND	ND	ND	ND
Lead	200	48	48	240	83	1100
Antimony	ND	ND	ND	3.0	15	69
Selenium	ND	ND	ND	ND	ND	1.0
Tin	2.1	3.2	3.9	ND	ND	2.2

Table continued

	Boring# / Sample #					
	6-4	7-1	7-2	7-5	8-1	8-2
Compounds / Depth	10-11.5'	0-1.5'	2.5-4'	15-16.5'	0-1.5'	2.5-4'
Aluminum	3800	3500	1000	1300	1600	1200
Boron	12	ND	12	ND	ND	ND
Barium	63	37	170	88	54	37
Chromium	3.2	88	120	130	2.7	ND
Cobalt	ND	56	34	6.5	ND	ND
Copper	14	190	120	42	18	22
Iron	2200	3700	2600	5800	5600	4400
Manganese	97	360	280	42	220	280
Nickel	ND	23	46	88	ND	ND
Zinc	550	310	320	210	67	29
Arsenic	1.3	4.4	7.2	15	1.3	1.2
Cadmium	120	33	18	_ 7.7	1.1	2.5
Mercury	ND	ND	ND	ND	ND	ND
Lead	1600	350	860	83	95	33
Antimony	ND	11	32	ND	ND	ND
Selenium	ND	ND	ND	ND	ND	ND
Tin	ND	ND	2.8	3.7	ND	ND

Table continued

		, , , , , , , , , , , , , , , , , , ,		·	
			Boring#	/ Sample	#
	8-3	8-4	8-5	9-1	9-2
Compounds / Depth	5-6.51	10-11.5'	15-16.5'	0-1.5'	2.5-4
Aluminum	1600	3400	3400	640	400
Boron	30	20	13	ND	ND
Barium	21	38	16	77	ND
Chromium	2.7	4.5	ND	9.5	ND
Cobalt	8.1	12	ND	ND	ND
Copper	19	33	7.5	26	ND
Iron	3000	4800	5400	2400	3600
Manganese	160	190	210	750	400
Nickel	7.9	10	8.8	13	ND
Zinc	53	130	16	41	3.5
Arsenic	1.7	1.3	2.7	11	ND
Cadmium	3.3	3.1	0.34	11	ND
Mercury	0.023	0.025	ND	ND	ND
Lead	68	64	16	47	9.8
Antimony	ND	ND	ND	ND	ND
Selenium	ND	ND	N D	N D	ND
Tin	ND	ND	8.0	ND	ND

Table Inorganic analyses of the Black River surface water on 9/16/81, in ppb

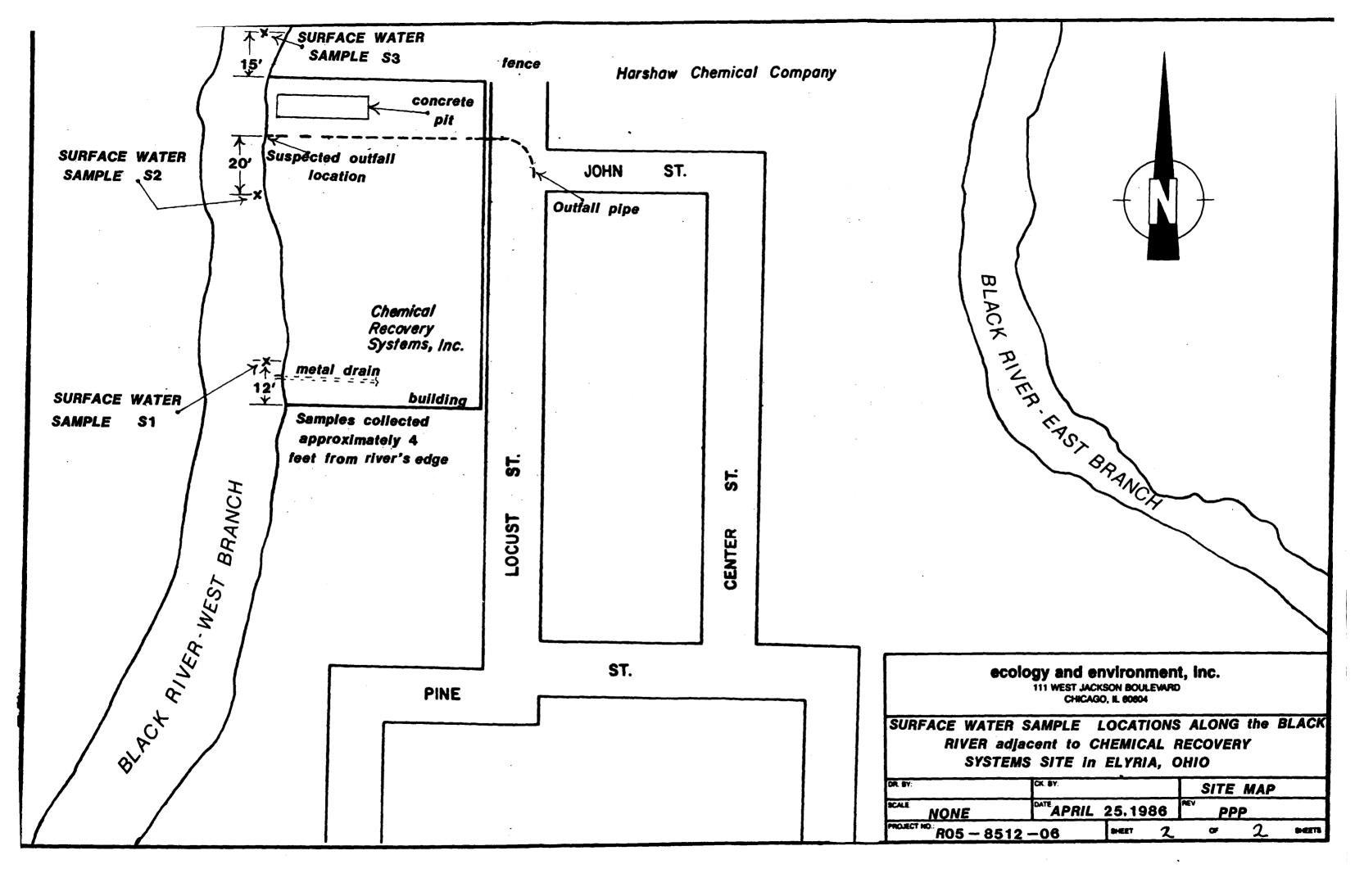
		Surface	Water	
Compounds	SW-1	SW-2	SW-3	SW-4
Aluminum	550	1800	200	400
Chromium	ND	ND	ND	ND
Barium	50	90	140	60
Beryllium	ND	ND	ND	ND
Cadmium	ND	ND	20	ND
Cobalt	ND	ND	ND	ND
Copper	ND	40	40	N D
Iron	900	2660	1660	620
Lead	ND	ND	ND	ND
Nickel	ND	ND	1890	20
Manganese	100	130	450	80
Zinc	ND	30	80	20
Boron	80	90	140	90
Vanadium	ND	ND	ND	ND
Calcium	67,900	68,500	86,400	70,100
Magnesium	18,200	18,100	19,100	18,700
Sodium	23,000	23,400	39,200	24,000
Arsenic	ND	ND	ND	ND
Antimony	ND	ND	20	ND
Selenium	ND	ND	10	ND
Thallium	ND	ND	50	ND
Mercury	ND	ND	ND	ND
Tin	ND	ND	ND	ND
Silver	ND	ND	ND	ND

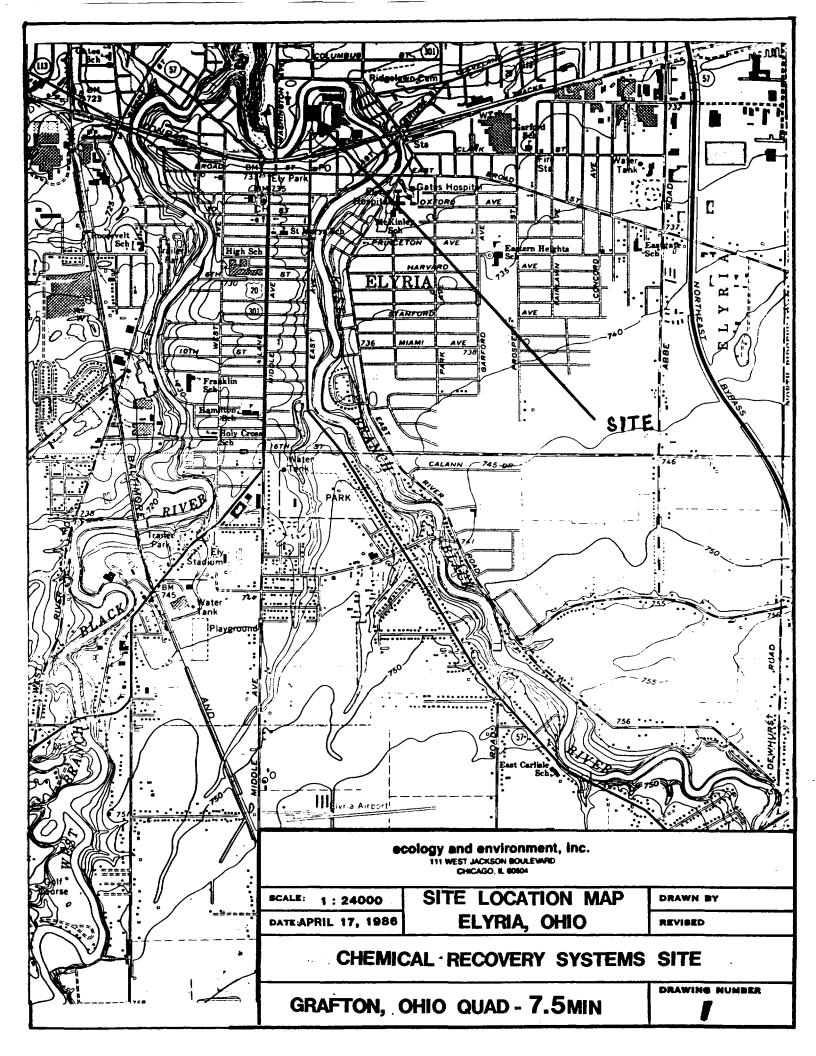
Table Inorganic analyses of E&E wells, in ppb

	Upgradie	Upgradient Wells		Downgradient Wells				
	W-3	W-4	W	<u>-1</u>		-2		
Compounds	9/16/81	9/16/81	8/5/81	9/16/81	8/5/81	9/16/81		
Aluminum	4200	3100	136,000	110,000	347,000	86,000		
Chromium	490	300	1620	2500	910	790		
Barium	ND	ND	164	1100	2740	1100		
Beryllium	ND	ND	8	ND	14	ND		
Cadmium	ND	ND	300	820	195	ND		
Cobalt	ND	ND	280	ND	330	ND		
Copper	ND	ND	1000	1700	1340	670		
Iron	8400	4700	276,000	210,000	926,000	ND		
Lead	580	600	840	2500	1160	1100		
Nickel	ND	ND	460	1000	1040	820		
Manganese	13,000	4000	6560	7400	1980	14,000		
Zinc	13,000	4200	4550	8600	7040	5100		
Boron	NA	NA	1450	NA	740	NA		
Vanadium	ND	ND	290	ND	640	ND		
Calcium	NA	NA	742,000	NA	521,000	NA		
Magnesium	NA	NA	125,000	NA	240,000	NA		
Sodium	NA	NA	597,000	NA	250,000	NA		
Arsenic	ND	ND	700	310	400	140		
Antimony	ND	ND	70	ND	ND	ND		
Selenium	ND	ND	ND	ND	ND	ND		
Thallium	ND	ND	ND	ND	ND	ND		
Mercury	ND	ND	ND	ND	3	ND		
Tin	ND	ND	120	ND	100	ND		
Silver	ND	ND	ND	N D	ND	ND		

TABLE OF CONTENTS

	Page
LIST OF FIGURES AND PLATES LIST OF TABLES	iii # lv
INTRODUCTION	1
Problem	ı
Purpose	ł
Field Work	t
Previous Studies	Z
SITE DESCRIPTION	2
Location and Physiography	Z
Climate	2
Site History	2
GEOLOGY Site Geology	٦ ٦
SOIL AND SEDIMENT ANALYSES	5
Soil	
Sediment	5
GROUND WATER	12
Ground Water Flow (contenued)	15
Site Hydrology Site Hydrology (continued)	145/17
WATER QUALITY	- 17
Ground Water continued (20)	17
Surface Water	20
CONCLUSIONS	23 624
Remedial Action Costs	25
Appendix I	26





SDMS US EPA REGION V FORMAT- OVERSIZED - 5 IMAGERY INSERT FORM

The item(s) listed below are not available in SDMS. In order to view original document or document pages, contact the Superfund Records Center.

SITE NAME	CHEMICAL RI	ECOVE	RY			
DOC ID#	147608					
DESCRIPTION OF ITEM(S)	PHOTOS - SIT	E INSPE	ECTION REPORT			
REASON WHY UNSCANNABLE	OVERSIZE	OR	<u>x</u> FORMAT			
DATE OF ITEM(S)	2/5/86					
NO. OF ITEMS	10					
PHASE	SITE ASSESSM	ENT				
PRP	RMD CHEMIC	AL REC	COVERY			
PHASE (AR DOCUMENTS ONLY)			Deletion Docket AR # Volume of			
O.U.						
LOCATION	Box # Fo	older#_	Subsection			
	COMME	NT(S)				
EP.	AVAILABLE FO A REGION V REC		· _			

INTRODUCTION TO DATA TABLES

A SUMMARY OF THE ANALYTICAL RESULTS FOR SAMPLES WHICH WERE TAKEN DURING FIELD ACTIVITIES CAN BE FOUND IN THE FOLOWING TABLES. ONLY DETECTABLE CONCENTRATIONS ARE REPORTED, HOWEVER, IF THE COMPOUND HAS A FOOTNOTE FOLLOWING THE VALUE, CONSULT THE DEFINITION OF THE FOOTNOTE PROVIDED BELOW. ADDITIONAL QA/QC INFORMATION IS PROVIDED IN THE ATTACHED DATA SHEETS.

I) REPORTING UNITS

- A) ORGANICS
 - 1) Water Samples ug/l or ppb (parts per billion)
 - 2) Soils or Sediments ug/kg or ppb (parts per billion)
- B) METALS
 - 1) Water Samples ug/l or ppb
 - 2) Soils or sediments mg/kg or ppm

II) DEFINITION OF FOOTNOTES TO ANALYTICAL DATA

A) ORGANICS

Footnote	Definition	Interpretation
บง	Detection Limit (D.L.) is estimated because of a Quality Control (QC) protocol. D.L. is possibly above or below Contract Required Detection Limit (CRDL).	Compound was not detected
UB	Compound found in laboratory blank. No Value above CRDL.	Compound was not detected
U J B	Compound found in laboratory blank, but not detected in sample. CRDL is estimated because of a QC protocol.	Compound was not detected
В	Compound found in blank. Two interpretations are possible:	
	a) If sample value is equivalent to D.L. to 5x blank concentration	Compound value is semi- quantitative.
	b) If sample value is greater than 5x the blank concentration	Compound value is quantitative
JВ	Compound found in blank, value is estimated because of QC protocol.	Compound value is semi- quantitative
R	Do Not Use Value. Major Violation of QC Protocol	Compound value is not usable.
С	Value adjusted for blank (an unacceptable procedure)	Compound value is semi- quantitative
J	Value is above CRDL and is an estimated value because of a QC protocol	Compound value is semi- quantitative
Q	No Analytical Result	Compound was not detected
N	Presumptive evidence for the presence of a compound as used for a Tentatively Identified Compound (TIC)	Compound value is semi- quantitative

B) METALS

FOOTNOTE	DEFINITION	INTERPRETATION
E	Estimated or not reported due to interference. See	Compound or element was not
	laboratory marrative.	detected or value is semi- quantitative
8	Analysis by Method of Standard Additions (Look for a "+" Footnote)	Value is quantative
R	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semiquantitative
*	Duplicate value outside QC protocols which indicates a possible matrix problem	Value is semiquantitative
+	Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative.	Data value is biased
[]	Value is real, but is above instrument D.L. and below CRDL	Value may be quantitative or semiquantitative
บว	D.L. is estimated because of a QC protocol. D.L. is possibly above or below CRDL.	Compound or element was not detected
J	Value is above CRDL and is an estimated value because of a QC protocol.	Value is semiquantitative

	110	M2 4 19 0	ME CIG	M61.105	Me L IGI	4 21						
	210	FE 992	¥ 6 521	K1 626	FC 527	PIERSII						
	LE C	49/6	SW-1	c. 1 . 2	26331	MEE311 EG534 Sw-1 ug12				<u> </u>		
COMPOUND	SAMP	ชพ- ユ	Dup.	49/4	BLANK	5001						
chloromethane			~ 4 / -			7						
bromomethane vinyl chloride				<u> </u>								
chloroethane												
methylene chloride acetone						<u> </u>						
carbon disulfide												
1,1-dichloroethene 1,1-dichloroethene		 		 	 -	 						
trans-1,2,-dichloroethene						-						
chloroform 1,2-dichloroethane												
2-butanone												
1,1,1-trichloroethane carbon tetrachloride									<u> </u>			
vinyl acetate												
bromodichloromethane 1,1,2,2-tetrachloroethane						 						
1,2-dichloropropane												
trans-1,3-dichloropropene trichloroethene		 			 	 	-	 	 		 	-
dibromochloromethane												
1,1,2-trichloroethane		 		 	 	 		 		 		
cis-1,3-dichloropropene						 						
2-chloroethylvinylether bromoform		 		 		 	 					
2-hexanone		ļ										
4-methyl-2-pentanone tetrachloroethene				ļ		 			 		ļ	
toluene		348	पाउ	5B7	787	387						
chlorobenzene ethylbenzene					<u> </u>	 	 	 		<u> </u>	<u> </u>	
styrene		3 -	0)	41								
total xylenes N-nitrosodimethylamine		3.1	23	73		 	 	 			 	
phenol												
aniline bis(2-chloroethyl)ether												
2-chlorophenol 1,3-dichlorobenzene						Ţ _		<u> </u>				
1,4-dichlorobenzene						<u> </u>						
benzyl alcohol 1,2-dichlorobenzene				 	 -	 	 	 	 		ļ	
2-methylphenol		<u> </u>			<u> </u>							
bis(2-chloroisopropyl)ether 4-methylphenol		 		 	 	 	 	 			 	
N-nitroso-di-n-propylamine												
hexachloroethane nitrobenzene		 		 		 	 	 	 		 	
isophrone												
2-nitrophenol 2,4-dimethylphenol		-				 	 				 	
benzoic acid												
bis(2-chloroethoxy)methane 2,4-dichlorophenol		 		 		 		 			 	
1,2,4-trichlorobenzene											ļ	
napthalene 4-chloroaniline												
hexachlorobutadiene						ļ						
4-chloro-3-methylphenol 2-methylnapthalene						<u> </u>						
hexachlorocyclopentadiene 2,4,6-trichlorophenol						-	ļ	-				
2,4,5-trichlorophenol												
2-chloronaphthalene 2-nitroaniline		 			 	 	 	 	 	 	 	}
dimethyl phthalate												
acenapthylene 3-nitroaniline						ļ						
acenaphthene /												
2,4-dinitrophenol 4-nitrophenol					-						-	-
dibenzofurnan												
2,4-dinitrotoluene							 					
2,6-dinitrotoluene diethylphthalate												<u> </u>
4-chlorophenyl-phenylether												
flourene 4-nitroaniline									<u> </u>	<u> </u>	<u> </u>	
4,6-dinitro-2-methylphenol												
N-nitrosodiphenylamine 4-bromophenyl-phenylether			<u> </u>	<u> </u>		<u> </u>	<u> </u>	 	<u> </u>	 	 	
hexachlorobenzene						ļ.						
STATE OHIO	C T TI	Chan	100/	Da		Ems 101	Du1	2612 -1				,

STATE OH 10 ... SITE Chemical Recovery Systems TOO RUS-8512-06 PAGE 1 OF 2, SET 1

	21 ME 6/9 20 E E 99: 5 W- 2 20 Me 6/9	MEL 19E	Ma 6 197	MEL /9/	MEERIL						
	2	70713	5 6		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
	O EE 99	366536 4916	49/1	EG-537	£ 6 534						
	\$ 5W-1	5ú-2	5ul - 3	Black	Sw-1			ļ			
COMPOUND pentachlorophenol	mg/L	pub	300 3	TOTAN	-						
phenanthrene											
anthracene di-n-butylphthalate			 					 			
fluoranthene											
benzidine pyrene		-}									
butylbenzylphthalate											
3,3'-dichlorobenzidine benzo(a)anthracene			 							<u> </u>	
bis(2-ethylhexyl)phthlate											
chrysene di-n-octyl phthlate		+	-		<u> </u>						
benzo(båk)fluoranthene											
indeno(1,2,3-cd)pyrene			<u> </u>								ļ
dibenzo(a,h)anthracene											
benzo(q,h,i)perylene alpha-8HC		 	<u> </u>								
beta-BHC delta-BHC	_			-					ļ		
gamma-BHC(lindane)											
heptachlor aldrin		-	 	 	 	 	 	 	 		
heptachlor epoxide											
endosulfan I dieldrin			 		 	 	 	 	 	 	
4,4'-DDE			 								
endrin endosulfan II		 	 	 	-		-	}	 		
4,4'-DDD											
endrin aldehyde endosulfan sulfate											
4,4'-DOT methoxychlor											
endrin ketone			<u> </u>								
chlorodane toxaphene		 				ļ		ļ	 		
Aroclor-1016		1	ļ								
Aroclor-1221 Aroclor-1232			 	 	 	 	 	 	 	 	
Aroclor-1242											
Aroclor-1248 Aroclor-1254			1		-	 	 	 	 		
Aroclor-1260 ELEMENT		1		 							
aluminum	8190	8380	8520	[95]	8170						
antimony arsenic											
barium	[79]	[867									<u> </u>
beryllium cadmium		-	ļ	-	ļ	ļ		ļ			
calcium	29300	28100	27500		28700						
chromium cobalt	12	13	C7.47	 	C1.67	 					<u> </u>
copper			1								
iron lead	9.2		12300	[3]	12200	 	 		 	 	
magnesium	9380	5010	8960		9060						
manganese	201	195	196	 	191	 					
nickel	[22	2	2402								
potassium selenium	LARIO	75320	5 240	 	5420	 	 	}	 		
silver	1.524	15000	1111.40		15400						
sodium thallium	12 100	75000	14600		15 400						
tin yanadium		-									
zinc	54	57	56		62						
cyanide CHECK IF ANALYZED (TENTATIVELY IDENTIFIED ORGANICS)		 								
4-hydroxy-4methyl-2-											
pentonone	23	26	16	13	33	 	<u> </u>	ļ	 	<u></u>	ļ
			 	 			 	 	ļ	 	
	1	1	ļ								
		+	 	 	 	 	 	 	 	 	
		1					<u> </u>				
	_		 	 	 	 	 		ļ	ļ	
STATE A HID o		 ,	0		·		Court		t		

STATE OHLO SITE Chemical Reconey Systems 100 ROS-8512-06 PAGE 2 OF 2, SET # 1

	LOT NUMBER 15312032
property off riverbank SAMPLING DATE Z-5-86 SAMPLING TIME 15 ORGANIC TRAFFIC NUMBER EG 534 I NORGANIC TRAFFIC NUMBER ME E 311 BOTTLE ANALYSIS TAG NUMBERS 80 02-jug Organics-P.P. 5-45324,5-45325 40 ml. vial VOA 5-45326,5-45327	LOT NUMBER 15312032
ORGANIC TRAFFIC NUMBER I NORGANIC TRAFFIC NUMBER BOTTLE ANALYSIS TAG NUMBERS 80 02-jug Organics - P.P. 5-45324,5-45325 40:nl. vial VOA 5-45326,5-45327	LOT NUMBER 15312032
ORGANIC TRAFFIC NUMBER EG 534 I NORGANIC TRAFFIC NUMBER ME E 3/1 BOTTLE ANALYSIS TAG NUMBERS 80 02-jug Organics—P.P. 5-45324,5-45325 40-ml. vial VOA 5-45326,5-45327	LOT NUMBER 15312032
INORGANIC TRAFFIC NUMBER ME E 3/1 BOTTLE ANALYSIS TAG NUMBERS 80 02-jug organics-P.P. 5-45324,5-45325 40-ml. vial VOA 5-45326,5-45327	15312032
INORGANIC TRAFFIC NUMBER ME E 3/1 BOTTLE ANALYSIS TAG NUMBERS 80 02-jug organics-P.P. 5-45324,5-45325 40-nl. vial VOA 5-45326,5-45327	15312032
BOTTLE ANALYSIS TAG NUMBERS 80 02-jug organics-P.P. 5-45324,5-45325 40-ml. vial VOA 5-45326,5-45327	15312032
80 02-jug organics - P.P. 5-45324,5-45325 40-nl. vial VOA 5-45326,5-45327	15312032
80 02-jug organics-P.P. 5-45324,5-45325 40ml. vial VOA 5-45326,5-45327	15312032
80 02-jug organics-P.P. 5-45324,5-45325 40-nl. vial VOA 5-45326,5-45327	15312032
40ml. vial VOA 15-45326,5-45327	25761302
Liter metals 5-45328	
	35317452
<u> </u>	<u> </u>
	[
	-
•	1
	
DIVISION DECONOTION AT THE OF COLLECTION.	
PHYSICAL DESCRIPTION AT TIME OF COLLECTION:	
	
PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	
THIS TORE CHANGES THAT THE CONTENT ON THE SHAFE CHANGE	
	
INSTRUMENT READINGS	
pH 6.5-6.7	
CONDUCTIVITY 230 FFM or 340 jumbos	

	5558	y Systems/Black River:	
ASE NUMBER _	3330		
SAMPLE #/STATIO	N LOCATION Modrix	Spike Duplicate for from at edge of proper SAMPLING TIME 153	SW-1/Downsli
	sumple	from at edge of prope	rh off rivert
SAMPLING DATE_	Z-5-86	SAMPLING TIME 153	0 '
ORGANIC TRA	AFFIC NUMBERE	Eqqu	•
I NORGANIC	RAFFIC NUMBER	$\frac{1E - N/A}{N}$	
BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
	occonics - P.P.	5-45330,5-45329	
80 02-jug 40-nl. vial	organics - P.P.	15-45333,5-45332	-
;	1		
	1	1	
	1	1	
	Ì		
_	1	İ	
	1		
PHYSICAL DESCR	IPTION AT TIME OF COL	LECTION:	
PHYSICAL CHANG	ES FROM TIME OF COLLI	ECTION UNTIL SHIPMENT:	
INSTRUMENT REA	DINGS		
PH 6.5-			
4	230 FFM or 3401	inles	
TEMPEDATURE	2°C	•	

CASE NUMBER _	5558		
AMPLE #/STATIO	N LOCATION SW-	2 Midstream sunde	near outlas
SAMPLING DATE _	z-5-86	SAMPLING TIME /4	20
ORGANIC TRA		E 993	
INORGANIC 1	TRAFFIC NUMBER	MEG 198 .	
BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8002-jug	organics-P.P.	5-45341,5-45340	15312052
40 ml. vial	VOA	5-45343,5-45342	25261302
Liter	metals	5-45344	353 M452
	<u>i</u>		
•			
PHYSICAL DESCR	IPTION AT TIME OF CO	LLECTION:	
		·	
	ES FROM TIME OF COLL	ECTION UNTIL SHIPMENT:	
PHYSICAL CHANG			
PHYSICAL CHANG		<u>., .,</u>	
PHYSICAL CHANG			
	DINGS		

ASE NUMBER		1 0 2 00.1.1	
AMPLE #/STATION	LOCATION Duplice	and at center of river-fr	the ear out
	trom b	SAMPLING TIME 1550	- 1670
AMPLING DATE _	2-5-86	SAMPLING TIME	
•	NIMPED E	: 6 5 3 6	
ORGANIC TRAF	FIC NUMBER E	NEG 195	
I NORGANIC TI	RAFFIC NUMBER	K G / L S	
I	ANALYSIS	TAG NUMBERS	LOT NUMBER
BOTTLE	organics-P.P.	5-45346,5-45345	15312052 V
80 oz. jug 40ml. vial	VOA	15-45348,5-45347	2576/302
	metals	15-45350	353 17452
Liter	meyer-		İ
	1		ĺ
	! !		<u> </u>
	1		Ì
	l L		<u> </u>
			
DUVETCAL DESCR	IPTION AT TIME OF CO	DLLECTION:	
. LUISIONE DESCR			
DUVETCAL CHANG	ES FROM TIME OF COL	LECTION UNTIL SHIPMENT:	
Phisical Char			
	ANTAICE		
INSTRUMENT REA	ADINGS		
INSTRUMENT REAL CONDUCTIVITY	~40) unlos		

40ml. vial VOA 5-45318,5-45317 252	ional fene
ORGANIC TRAFFIC NUMBER INORGANIC TRAFFIC NUMBER BOTTLE ANALYSIS ORGANIC TRAFFIC NUMBER MEG 197 SOTTLE ANALYSIS TAG NUMBERS LOT N BO DZ-Jug Organics - P.P. S-45316, 5-45315 Liter Medals S-45319 S-45319 PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	ional fene
ORGANIC TRAFFIC NUMBER INORGANIC TRAFFIC NUMBER BOTTLE ANALYSIS ORGANIC TRAFFIC NUMBER MEG 197 SOTTLE ANALYSIS TAG NUMBERS LOT N BO DZ-Jug Organics - P.P. S-45316, 5-45315 Liter Medals S-45319 S-45319 PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	
ORGANIC TRAFFIC NUMBER EG 538 INORGANIC TRAFFIC NUMBER MEG 197 BOTTLE ANALYSIS TAG NUMBERS LOT N BODZ-jug Organics - P.P. S-45316, 5-45315 1531 40ml. vial VOA 5-45318, 5-45317 252 Liter metals 5-45319 3531 PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	
ORGANIC TRAFFIC NUMBER INORGANIC TRAFFIC NUMBER MEG 197 SOTTLE ANALYSIS TAG NUMBERS LOT N 80 02-jug organics - P.P. 5-45316, 5-45315 1531 40ml. vial VOA 5-45318, 5-45317 252 Liter metals 5-45319 3531 PHYSICAL DESCRIPTION AT TIME OF COLLECTION: PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	·
INORGANIC TRAFFIC NUMBER MEG 197 BOTTLE ANALYSIS TAG NUMBERS LOT N BODZ-jug Organics—P.P. 5-45315 1531 40ml. vial VOA 5-45318,5-45317 252 Liter metals 5-45319 3531 PHYSICAL DESCRIPTION AT TIME OF COLLECTION: PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	
PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	
PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	
PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	
PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	T MIIMDED
Homl. vial VOA 5-45318,5-45317 252 Liter metals 5-45319 3531 PHYSICAL DESCRIPTION AT TIME OF COLLECTION: PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	312052
PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	
PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	5317452
PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	
PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	
PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	
PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	
PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	
PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	
PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:	
TNSTRIMENT READINGS	· · · · · · · · · · · · · · · · · · ·
TNCTRIMENT READINGS	
INSTRUMENT READINGS	
INSTRUCTION REPORTED	
pH 6.5	
CONDUCTIVITY 375 jumbrs	

ASE NUMBER	5358	systems/Black River.	
		1	
MPLE #/STATIC	N LOCATION BL/	BLANK	
		•	
AMPLING DATE	2-5-86	SAMPLING TIME 1530)
	NUMBER	. C. E.3.7	
	· · · · · ·	G 537	
I NORGAN IC	TRAFFIC NUMBER	NEG 196 .	
	. •		
OTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
3002-jug	organics-P.P.	15-45320,5-45349	15317052
40 ml. vial	VOA	15-45321,5-45322	25261302
Liter	metals	15-45323	35317452
			<u> </u>
			1
	<u>i</u>		1
	Ì		1
•	<u> </u>		
	<u> </u>	1	<u> </u>
HYSICAL DESCR	IPTION AT TIME OF COL	LLECTION:	
HYSICAL CHANG	GES FROM TIME OF COLL	ECTION UNTIL SHIPMENT:	···-
	<u>-</u>		
INSTRUMENT REA	ADINGS		
pH 7.5-	-		
CONDUCTIVITY	4 ppm = 10pm	mhoo	
PENDEDAY INF	1300		



ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60804, TEL. 312-663-9415 International Specialists in the Environment

Date Received for Review: $4/29/86$ Date Review Completed: $5/5/86$
10: Pat Petrella
FROM: Suzanne Kozlowski
SUBJECT: Chemical Recovery Systems
Sample Description: Case \$ 5558 five (5) low water organics
Project Data Status: COMPLETE
FIT Data Review Findings: See Tom Clyne's review

Additional Comments:

Book	No.	_5
Page	No.	108

consist donner

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V

DATE	: 4/18/86	REGION V
SUBJ	ECT: Review of Page 1	Region V CLP Data or Review on4 MAR 86
FROM	: Curtis Ross, I Central Region	Director (5SCRL) Him Home
		FIT
We h	ve reviewed the	data for the following case(s).
SITE	NAMECHEMICAL	RECOVER_SYSTEMSSMO Case No5558
EΠΛ	Data Cot No SE '	No. of D.U./Activity 3031Samples_5NumbersY905/C48500
EPH	Data Set NO Sr .	3031BamplesJNdmbers1303/C4B300
CRL	Nc86FDD4S78	TO 86FD04S80
SMO	TRAFFIC No.	_EE993,EE994,EG536 TO EG538
		Hrs. Required
CLP	Laboratory	_HAZELTONfor review:4
Foll	owing are out f	indings:
A	SURROGATES	VOA AND SV ARE ACCEPTABLE. PESTICIDES HAS A LOW DEC FOR EE994. THE REMAINING SURROGATES ARE ACCEPTABLE.
B	MS/MSD	ENDRIN HAS A 34 AND 42% %R LEVEL. THE REMAINING R%D AND %R ARE ACCEPTABLE.
С	LAR BLANKS	MB-1, 30164 HAD TOLUENE (CRDL. MB-1, 30172 HAD ACETONE (14) AND TOLUENE (1). THE REMAINING BLANKS ARE ACCEPTABLE.
D	TUNING	ACCEPTABLE
E	DETECTION	THIS LAB HAS SV DETECTION LIMITS 2X THE NORMAL CRDL. F. THOMAS IS INVESTIGATING THIS PROBLEM.
(V)		able for use with qualifications. inary - pending verification by contractor lab.
cc:	Dr. Alfred Haeb	er/ Joan Fisk/Gary Ward. EPA Support Services.

Ross K. Robeson, EMSL-LasVegas

Don Trees, CLP/Sample Management Office

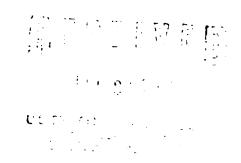
((((USER"8 INFORMATION ,,,,
STSA SITE: CHEMICAL RECORERY SYSTEMS CASE: DATE: 25 MARCH 86 TOLUENE FOUND IN THE BLANK. DO NOT USE TOLUENE. EE993 TOTAL XYLENE FOUND, BUT BELOW CRDL. THERE IS A TIC LAB ARTIFACT. ND HRS HITS EE994 TOLUENE IN THE BLANK, DO NOT USE. XYLENE IS A -- J--. TIC IS AN ARTIFACT. NO HRS HITS. TOLUENE FOUND IN THE BLANK, DO NOT USE. EG 536 TIC ARE ARTIFACTS. NO HRS HITS. TOLUENE FOUND IN BLANK, DO NOT USE. THE TIC IS A LAR EG 537 ARTIFACT FOR SV AND UNKNOWN IN THE VOA. NO HRS HITS TOLUENE FOUND IN THE BLANK, DO NOT USE. EG 538 TOTAL XYLENES FOUND, BUT -- J--. THE TIC IS A LAB ARTIFACT. NO HRS HITS. SUMMARY: THERE ARE NO HRS HITS IN THIS DATA PACKAGE.

RECEIVED Ark 2 9 1986

3301 KINSMAN BLVD. . P.O. BOX 7545 . MADISON, WI 53707 . (608) 241-4471 . TLX 703956 HAZRAL MDS UD

February 21, 1986

Sample Management Office Viar and Company 300 Noth Lee Street Alexandria VA 22314



Enclosed please find the data packages for Case No. 5558. These samples were received on February 6, 1986 from U. S. EPA Region V. All samples were analyzed and reported according to the protocols provided under our Contract No. 68-01-7146.

Please note the following summary comments relating to the contractual quality control items in this case:

- o <u>GC-MS Tuning</u>. All tuning requirements for both BFB and DFTPP for samples analyzed in this case were within contract criteria.
- o <u>Instrumental Calibrations</u>. All instrumental calibrations for all fractions analyzed (VOA, BNA, and pesticides) were within contract criteria for both initial and continuing calibrations.

Please note that on the Pesticide Evaluation Standards Summary (Form VIII), DBC is not added to our individual Mix B, toxaphene, or PCB 1260 standards when co-elution problems interfere with either a specific target compound or a major identifying peak on the column used. We also use an extra standard we call "column check" which contains only DDT and endrin and is used exclusively for the calculation of breakdown.

- Surrogate Recoveries. The surrogate recoveries calculated and reported for the volatile, semi-volatile and pesticide fractions were found within contract limits with one exception. The DBC surrogate was outside of the advisory limits (low end), for sample EE994 of the pesticide fraction.
- Method Blanks. All method blanks analyzed with this case were found to be within acceptable contract criteria for all fractions.

RECEIVED APR 2 9 1986

Sample Management Office February 21, 1986 Page 2

If you have any questions regarding this case or need any further clarifications, please feel free to call.

Sincerely,

David C. Hills

David C. Hels

Manager, Environmental Analysis

DCH/msw

cc: USEPA Region V USEPA EMSL-LV

Central File

RECEIVED APR 2 9 1986

In Reference to Case No(s):

Contract Laboratory Program REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date	of Call:	25 M	786	(, , ,)
Labor	ratory Name:	Hara les	to Let	(608)
	Contact:	DAVE	HILL9	
Regio	on:	I		
	onal Contact:			
Call !	Initiated By: _	Laboratory	✓ Region	
In reference	te to data for the	following sample no hare fun cla	, ,	
(2)	midete	7 1	<i>M M M M M M M M M M</i>	11: -2
(<u>3)</u> (1	chings 1	Dr at 3	7 in sel	10.5
Summary o	of Questions/Issue	es Discussed:		
(1)				
(Z) 1	List proper	14 Turkey	171 Of no	or right
· ·				»'
B)	nt Lora	cetin his	as hore tup	re-landochter
	profrance			
Summary o	of Resolution:			
		······································		·
			·	
			······································	
				
			·····	
		F b.		FAM EL
	Signatur	et Minu		Date

86 F P 0 4 5 78

Sample Number

E E 993

Organics Analysis Data Sheet (Page 1)

Laboratory Name HAZLETON LABORATORIES	Case No:
Lab Sample ID No: 160201135 Sample Matrix: WATER	OC Report No:
Deta Release Authorized By: David C. Will	Date Sample Received: 2-6-86
Volatile Co	▼
Concentration: Law	Medium (Circle One)
Date Extracted/Prepared:	2-8-86 FRN 30165
Date Analyzed:	2-7-86 1317
Conc/Dil Factor:	pH
Percent Moisture: (Not De	icanted)

CAS Number		Up/Lor up/Ke (Circle One)
74-87-3	Chloromethane	10 U
74-83-9	Bromomethene	10 U
78-01-4	Vinyl Chloride	10 U
76-00-3	Chloroethane	10 U
75-09-2	Methylene Chloride	5 U
67-64-1	Acetone	10 U
75-15-0	Carbon Disulfide	5 U
78-36-4	1, 1-Dichloroethene	· 5 U
75-34-3	1, 1-Dichloroethene	5 U
156-80-5	Trans-1, 2-Dichlorosthene	5 U
67-66-3	Chloroform	5 U
107-06-2	1, 2-Dichloroethene	5 U
78-93-3	2-Butanone	10 U
71-55-6	1, 1, 1-Trichloroethane	5 U
56-23-5	Cerbon Tetrachloride	5 U
108-05-4	Vinyl Acetate	10 U
75-27-4	Bromodichloromethene	5_U

ropene 5 U chloropropene 5 U ne 5 U
chloropropene 5 U
Ge 5 [
omethene 5 U
proethene 5 U
5 U
oropropene 5 II
hinylether 10 U
5 U
entanone 10 U
10 U
hene 5 U
echloroethane 5 U
4 JB 5-4
• 5 U
5 V
5 U
3 7 5*

NOTO

Date Reporting Custifiers

For regarding results to EPA, the following results qualifiers are used. Additional Roys or feathers suplaining results are ensouraged. However, the definition of each flag must be explost:

- Value If the reput is a value greater than or could to the detection limit, report the value
- U Indicates compound was analysed for but not detected. Report the minimum detection limit for the sample with the U le.g., 1QU) based on necessary concentration / dilution action. (This is not necessarily the insprument detection timit.) The feemest should rest! U-Compound was analysed for but not detected. The number is the minimum attainable detection timit for the sample.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1-1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criterie but the result is less than the spectral detection while but greater than zero (e.g., 10.7) if hims of detection is 10 µg /3 and a concentration of 3 µg /1 is calculated, report as 3.0.
- C This Reg agains to passecte parameters where the identification has been confirmed by GC MS. Single component pasticides ≥10 kg/ul in the final extract should be confirmed by GC MS.
- 8 This flag is used when the analyse is found in the blank as well as a gample. It indicases possible probable blank concamination and werns the data year to take appropriate action.

Ster Specific flags and footnoses may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name HAZLETON LABORATORIES	Sample Number
Case No:5558	EE 993

Organics Analysis Data Sheet (Page 2)

Semivolatile Compounds

Concentration: (Low)	Medium (Circle One)	GPC Cleanup CYes (SNo
Dete Extracted /Prepared: .	2-6-86	Separatory Funnel Extraction (II) Yes
Dese Analysed:	2-6-86	Continuous Liquid - Liquid Extraction @Yes
Conc/Dil Factor:		PRN 27076
Percent Moisture (Decarte	d)	1902

CAS Number		ug /1 dr ug /Kg (Circle One)
108-95-2	Phenol	20 U
111-44-4	bisi-2-ChloroethvilEther	20 U
95-57-8	2-Chlorophenel	20 U
\$41-73-1	1 3-Dichlorobenzene	20 U
108-46-7	1, 4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1, 2-Dichtorobenzene	20 U
95-48-7	2-Methylphenol	20 U
39638-32-9	bist2-chloroisopropyllEther	20 U
106-44-5	4-Mernylphenol	20 U
621-64-7	N-Noroso-Di-n-Propylamine	20 U
67-72-1	Hexachlorosthane	20 U
96-95-3	Narabenzene	20 U
78-59-1	Isopherone	20 U
88-75-8	2-Nitrophenol	20 U
106-67-9	2. 4-Dimethylphenal	20 U
65-85-0	Senzoic Acid	100 U
111-91-1	bra - 2-Chloroethoxy Methens	20 U
120-83-2	2. 4-Dichlorophenel	20 U
120-82-1	1. 2. 4-Trichlorobenzene	20 U
91-20-3	Neprohelene	20 U
106-47-8	4-Chigrosovine	20 U
87-68-3	Hexachlorobutaciene	20 U
59-50-7	4-Chloro-3-Methylphenol	20 U
91-57-8	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	20 U
88-06-2	2. 4, 6-Trichlorophenol	20 U
95-95-4	2, 4, 5-Trichlorophenof	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Naroeniline	100 11
131-11-3	Dimethyl Phihalete	20 U
208-96-8	Acensprittylene	20 U
99-09-2	3-Nitroeniline	100 U

CAS Number		100 /1 or ug /Kg (Circle One)
83-32-9	Acenephinene	20 U
51-28-5	Z. 4-Dinitrophenol	100 U
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzoluran	20 U
121-14-2	2. 4-Dinitrotoluene	20 U
906-20-2	2. 6-Dinitrataluene	20 U
94-66-2	Diethylphthelate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
96-73-7	Fluorene	20 U
100-01-4	4-Nigrosniline	100 U
534-52-1	4, 6-Dinitro-2-Methylphonol	100 U
96-30-6	N-Nitrosodionenylamine (1)	20 U
101-65-3	4-Bromophenyi-phenylether	20 U
118-74-1	Mexachiorobenzane	20 U
87-86-5	Pentachiorophenol	100 U
85-01-8	Phenanthrene	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Burylphmalate	20 U
208-44-0	Fluoranthene	20 U
129-00-0	Pyrene	20 U
95-68-7	Butylbenzylphthalate	20 U
91-94-1	3. 3'-Dichlorobenzidine	20 U
56-65-3	Benzota (Anthracene	20 U
117-81-7	bisi2-Emythexivl/Phinalate	20 U
218-01-9	Chrysene	20 U
117-84-0	Di-n-Octyl Phinelate	20 U
205-99-2	BenzolbiFluoranthene	20 U
207-08-9	BenzokiFluoranmene	20 U
50-32-8	Benzola Myrene	20 U
193-39-5	Indenot1, 2, 3-cd/Pyrene	20 U
53-70-3	Dibenzia, hiAnthracene	20 U
191-24-2	Benzolg, h. i Perviene	20 U

ITI-Connex be separated from dunanylamine

Laboratory Name	HAZLETON LABORATORIES RECEIVED AND 2 9	1025
Case No _ 5558		1000

Semple Number EE 993

Organics Analysis Data Sheet (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)	GPC Cleanup DYes MNo
Dete Extracted Prepared 2-6-86	Separatory Funnel Extraction (Yes
Dete Analyzed: 2-12-86	Continuous Liquid - Liquid Extraction - Yes
Conc/Dil Factor:	
Percent Moisture (decanted)	

CAS Number		(Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Detts-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Meptechlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 ป
60-57-1	Dieldrin	0.10 U
72-55-9	4. 4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4, 4'-DDD	0.10 U
1031-07-8	Endocultan Sulfate	0.10 U
50-29-3	4. 4'-DDT	0.10 U
72-43-5	Methoxychlor	0.50 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordene	0.50 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Arocier-1016	0.50 U
11104-28-2	Arocior-1221	0.50 U
11141-16-5	Aroclor-1232	0.50 U
53469-21-9	Arocior-1242	0.50 U
12672-29-6	Araciar-1248	0.50 บ
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_i = Volume of extract injected (ul)

V_e = Volume of water extracted (ml)

W_{g.} = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

٧.	1000 m	«W	v 10,000 ul	v. 4.001
----	--------	----	-------------	----------

Laboratory Name:	HAZLETON LABORATORIES
Case No	<i>55</i> 58

Semple Number EE 993

Organics Analysis Data Sheet (Page 4)

RECEILED MARE S

Tentatively Identified Compounds

GAS Number	Compound Name	Fraction	AT or Scan Number	Estimated Concentration (ug/lar ug/lag)
1. 123422	4-hydroxy- 4-metryl - 2- pentanone *	BAN	<i>2</i> 05	23
	no volatiles found	VOA		
4 5				
7				
8				
10				
12				
14				
18				
17				
19				
21				
23				
25	·			
27				
28	T			

⁴ product of the aldol condensation of ecetone

86F P04579 Sample Number E E 994

Organics Analysis Data Sheet (Page 1)

Laboratory Name HAZLETON LABORATORIES Lab Sample ID No: 60201136 WATER	Case No: 5358 QC Report No: 68-01-7146
Data Release Authorized By: David C. Lill	Date Sample Received: 2-6-86
Volatile Co	mpounds
Concentration: Love	
Date Extracted/Prepared:	
Date Analyzed:	2-8-86 1355
Conc/Dil Factor:	pH
Percent Moisture: (Not De	canted)

CAS Number		ug/) or ug/Kg (Circle One)
74-87-3	Chloromethane	10 U
74-83-9	Bromomethene	10 U
75-01-4	Vinyl Chloride	10 U
75-00-3	Chloroethene	10 U
75-09-2	Methylene Chloride	5 U
67-84-1	Acetone	10 U
75-15-0	Carbon Disulfide	5 U
75-35-4	1, 1-Dichloroethene	· 5 U
78-34-3	1, 1-Dichloroethene	5 U
156-60-5	Trans-1, 2-Dichloroethene	5 U
67-66-3	Chloroform	5 U
107-08-2	1, 2-Dichloroethene	5 U
78-93-3	2-Butanone	10 U
71-65-6	1, 1, 1-Trichlorosthene	5 U
56-23-5	Carbon Tetrachloride	5 U
108-05-4	Vinyl Acetate	10 U
75-27-4	Bromodichloromethane	5 U

CAS Number		ug/ler ug/Kg (Circle One)
78-87-5 .	1, 2-Dichloropropene	5 U
10061-02-6	Trans-1, 3-Dichloropropene	5 U
79-01-6	Trichloroethene	5 0
124-48-1	Dibromochloromethene	5 U
79-00-5	1, 1, 2-Trichloroethane	5 U
71-43-2	Benzene	5 U
10061-01-5	cus-1, 3-Dichloropropens	5.11
110-75-8	2-Chloroethylvinylether	10 11
78-25-2	Bromoform	5 U
108-10-1	4-Methyl-2-Pentanone	10 U
591-78-5	2-Hexanone	10 U
127-18-4	Tetrachioroethene	5 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 U
106-88-3	Toluene	3 J8 3-H
108-90-7	Chlorobenzene	5.11
100-41-4	Ethylbenzene	5 U
100-42-5	Styrene	.~15 U
	Total Xylenes	2 5 5

POTC

Data Reparang Qualiflans

For reporting results to EPA, the following results qualifiers are used. Additional flags or feathests explaining results are encouraged. However, the definition of each flag must be explicit.

- Value If the result is a value greater than or equal to the detection limit; report the value
- U Indicates compound was analyzed for but not detected. Report the minimum detection times for the sample with the U (e.g., 10U) beand on necessary concentration / displays action. (This is not necessarily the instrument detection time). The features should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J Inscrees an estimated value. This flag is used either when estimating a concentration for tensitively identified compounds where a 1-1 response is assumed or when the mass spectral data indicated the presence of a compound that masts the identification criteria but the result is tess than the spectral direction limit but greater than zero (e.g., 10J). If limit of direction is 10 µg-1 and a concentration of 3 µg-1 is calculated, report as 3J.
- C This flag appries to passicide perameters where the identification has been confirmed by GC MS. Single component proncises 210 kg/sl in the final extract should be confirmed by GC MS.
- 8 This flag is used when the analyse is found in the blank as well as a gample. It indicases gossible probable blank contamination and worns the data user to take appropriate action.
- Other Specific flags and locknotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

HATI ETON I ARDRATORIES	
Laboratory Name HAZLETON LABORATORIES	Sample Number
Case No:55.5.8	EE 994

Organics Analysis Data Sheet (Page 2)

Semivolatile Compounds

Concentration: (Low) Med	lium (Circle One)	GPC Cleanup (TYes (SNo
Dese Extracted / Prepared:	2-6-86	Separatory Funnel Extraction TYes
Dete Analysed:	2-6-86	Continuous Liquid - Liquid Extraction (1) Yes
Conc/Dil Factor:		FEN 27077
Percent Moisture (Decented) _		1950

CAS Number		ug/lor ug/Kg (Circle One)
108-95-2	Phenol	20 U
111-44-4	bisi-2-ChloroethvllEther	20 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1 3-Dichlorobenzene	20 U
106-46-7	1, 4-Dichlorobenzene	20 U
100-51-6	Senzyl Alcohol	20 U
95-50-1	1. 2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
39638-32-9	bisk2-chloroiscorcovilEther	20 U
106-44-8	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-n-Procylamine	20 U
67-72-1	Hexachiorosthane	20 U
96-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-8	2-Nitrophenol	20 U
106-67-9	2. 4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	100 U
111-91-1	bist 2-Chloroethoxy Methane	20 U
120-83-2	2. 4-Dichlerophenal .	20 U
120-82-1	1. 2 4-Trichlorobenzene	20 U
91-20-3	Nagritheiene	20 U
106-47-8	4-Chiorosnuline	20 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-Methylphenol	20 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachiorocyclopentadiene	20 U
89-06-2	2.4.6-Trichlorophenol	20 U
95-95-4	2. 4. 5-Trichlorophenol	100 U
91-58-7	2-Chioronaphthalene	20 U
88-74-4	2-Nitroeniline	100 U
131-11-3	Dimethyl Phthalate	20 U
208-96-8	Acenephthylene	20 U
99-09-2	3-Nitroanikne	100 U

Si-28-5	CAS		(ug/l)rug/Kg
S1-28-5 2, 4-Dinitrophenol 100 1 100-02-7 4-Nitrophenol 100 1 132-64-9 Dibenzoluran 20 U 121-14-2 2, 4-Dinitrotoluene 20 U 121-14-2 2, 4-Chlorophenyl-phenylether 20 U 121-14-2 2, 4-Chlorophenyl-phenylether 20 U 121-14-3 4-Dinitro-2-Methylphenol 100 U 100-01-8 4-Dinitro-2-Methylphenol 100 U 101-55-3 4-Bromophenyl-phenylether 20 U 118-74-1 Hexachlorophenzene 20 U 118-74-1 Hexachlorophenzene 20 U 120-12-7 Anthracene 20 U 120-12-7 Anthracene 20 U 120-12-7 Anthracene 20 U 129-00-0 Pyrene 20 U 17-84-1 3, 3'-Dichlorophenzidine 20 U 17-84-0 Di-n-Octyl Phithaliste 20 U 193-39-5 BenzotsiPiluoranthene 20 U 193-39-5 BenzotsiPiluoranthene 20 U 193-39-5 Indeno(1, 2, 3-cd)Pyrene 20 U 10 10 10 10 10 10 10			(Circle One)
100-02-7	2 3-32-9	Acenaphthene	20 Ū
132-64-9 Dibenzofuran 20 U 121-14-2 2, 4-Dinitrotoluene 20 U 206-20-2 2, 6-Dinitrotoluene 20 U 20 U 24-86-2 Diethylphthalare 20 U 7005-72-3 4-Chlorophenyl-phenylether 20 U	51-28-5	2, 4-Dinitrophenol	100 U
121-14-2 2. 4-Dinitrotoluene 20 U	100-02-7	4-Nitrophenol	100 U
SO6-20-2 2, 6-Dinitrotoluene 20 U S4-86-2 Diethylphthalate 20 U 7005-72-3 4-Chilorophenyl-phenylether 20 U 96-73-7 Fluorene 20 U 100-01-6 4-Nitrosotline 100 U \$34-\$2-1 4, 6-Dinitro-2-Methylphenol 100 U \$34-\$2-1 4, 6-Dinitro-2-Methylphenol 100 U \$6-30-6 N-Nitrosotliphenylemine (1) 20 U 101-\$5-3 4-Bromophenyl-phenylemine (2) U 101-\$5-3 4-Bromophenyl-phenylemine (20 U 17-86-5 Pentachloropenzene 20 U 18-74-1 Hexachloropenzene 20 U 120-12-7 Anthracene 20 U 120-12-7 Anthracene 20 U 120-12-7 Anthracene 20 U 129-00-0 Pyrene 20 U 129-00-0 Pyrene 20 U 129-00-0 Pyrene 20 U 15-88-7 Butylbenzylonthalate 20 U 15-86-5 BenzotalAnthracene 20 U 117-81-7 bis2-Ethylhexyl)Phinalate 20 U 117-84-0 Di-n-Octyl Phinalate 20 U 205-99-2 BenzotalPyrene 20 U 207-08-9 BenzotalPyrene 20 U 207-08-9 BenzotalPyrene 20 U 193-39-5 Indenot1 2 3-cdlPyrene 20 U 193-39-5 Indenot1 2 3-cdlPyrene 20 U 193-39-5 Indenot1 2 3-cdlPyrene 20 U 20 U	132-64-9	Dibenzoluren	20 U
20 U 2005-72-3	121-14-2	2. 4-Dinitrotoluene	20 U
20 U 2005-72-3	806-20-2	2. 6-Dinitrotoluene	20 U
100-01-6	84-86-2	Disthylphthelate	20 U
100-01-8	7005-72-3	4-Chlorophenyl-phenylether	20 U
334-\$2-1 4, \$-Dinitro-2-Methylphenol 100 U 86-30-6 N-Nitrosodiphenylamine (1) 20 U 101-\$5-3 4-Bromophenyl-phenylether 20 U 118-74-1 Hexachlorobenzene 20 U 87-86-5 Pentachlorobenzene 20 U 85-01-8 Phenanthrene 20 U 120-12-7 Anthracene 20 U 120-12-7 Anthracene 20 U 208-44-0 Fluoramhene 20 U 208-44-0 Fluoramhene 20 U 129-00-0 Pyrene 20 U 159-8-7 Butylbenzylanthalate 20 U 159-8-8-7 Butylbenzylanthalate 20 U 11-84-1 3, 3'-Dichlorobenzidine 20 U 117-81-7 bis(2-Ethylhexyl)Phinalate 20 U 117-81-7 Dis(2-Ethylhexyl)Phinalate 20 U 117-84-0 Di-n-Octyl Phinalate 20 U 205-99-2 Benzolb Fluoramhene 20 U 207-08-9 Benzolb Fluoramhene 20 U 30-32-8 Benzolb Pyrene 20 U 193-39-5 Indeno(1, 2, 3-cd)Pyrene 20 U 53-70-3 Dibenza hiAnthracene 20 U	96-73-7	Fluorene	20 U
B6-30-6 N-Nitrosodiphenylamine (1) 20 1 101-\$5-3 4-Bromophenyl-phenylamine (2) 1 118-74-1 Hexachloropenzene 20 1 87-86-5 Pentachloropenzene 20 1 85-01-8 Phenanthrene 20 1 120-12-7 Anthracene 20 1 120-12-7 Anthracene 20 1 120-12-7 Anthracene 20 1 120-12-7 Anthracene 20 1 129-00-0 Pyrene 20 1 129-00-0 Pyrene 20 1 129-00-0 Pyrene 20 1 15-86-7 Bunylbenzylanthalate 20 1 15-86-8 BenzolalAnthracene 20 1 17-81-7 Bisl2-Ethylhexvij/Phinalate 20 1 17-81-7 Chrysene 20 1 117-84-0 Di-n-Octyl Phinalate 20 1 117-84-0 BenzolalFluoranthene 20 1 205-99-2 BenzolalFluoranthene 20 1 207-08-9 BenzolalFyrene 20 1 193-39-5 Indeno(1, 2, 3-cd)Pyrene 20 1 193-39-5 Indeno(1, 2, 3-cd)Pyrene 20 1 193-39-5 Indeno(1, 2, 3-cd)Pyrene 20 1 1	100-01-6	4-Nitroeniline	100 U
101-55-3	834-52-1	4, 6-Dinitro-2-Methylphenol	100 U
118-74-1 Hexachlorobenzene 20 1	96-30-6	N-Nitrosodiphenylamine (1)	20 U
### ##################################	101-55-3	4-Bromophenyl-phenylether	20 U
## 195-01-8 Phenanthrene 20 U	118-74-1	Hexachlorobenzene	20 U
120-12-7	87-86-5	Pentachiorsphenol	100 U
20 U 208-44-0 Fluoranthene 20 U 208-44-0 Fluoranthene 20 U 129-00-0 Pyrene 20 U 20 U 25-88-7 Butylbenzylphtnelate 20 U	85-01-8	Phenanthrene	20 U
208-44-0 Fluoranthene 20 U 129-00-0 Pyrene 20 U 155-88-7 Butylbenzylphthelate 20 U 155-88-7 Butylbenzylphthelate 20 U 155-85-3 Benzola/hithracene 20 U 157-81-7 bis/2-Ethylhexyl/Phinalate 20 U 157-84-0 Chrysene 20 U 157-84-0 Di-n-Octyl Phinalate 20 U 157-84-0 Benzola/Fluoranthene 20 U 205-99-2 Benzola/Fluoranthene 20 U 207-08-9 Benzola/Pyrene 20 U 207-08-9	120-12-7	Anthrecene	20 U
129-00-0	84-74-2	Di-n-Butylphthalate	20 U
### ### ##############################	208-44-0	Fluorenthene	20 U
3.3'-Dichlorobenzidine 20 U 56-55-3 BenzotalAnthracene 20 U 117-81-7 bisi(2-Ethylhexvi)Phthalate 20 U 117-81-7 bisi(2-Ethylhexvi)Phthalate 20 U 117-84-0 Di-n-Octyl Phthalate 20 U 205-99-2 BenzotalFluoranthene 20 U 207-08-9 BenzotalFluoranthene 20 U 30-32-8 BenzotalFyrene 20 U 193-39-5 Indeno(1, 2, 3-cd)Fyrene 20 U 33-70-3 Dibenzia hiAnthracene 20 U	129-00-0	Pyrene	20 U
S6-55-3 Benzotal-Anthracene 20 U	85-68-7	Butylbenzylonthelate	20 U
117-81-7 bis/2-Ethylhexvil/Prinslate 20 U 218-01-9 Chrysene 20 U 117-84-0 Di-n-Octyl Prinslate 20 U 205-99-2 Benzoth/Fluoranthene 20 U 207-08-9 Benzoth/Fluoranthene 20 U 50-32-8 Benzoth/Pyrene 20 U 193-39-5 Indeno(1, 2, 3-cd)/Pyrene 20 U 53-70-3 Dibenzia hiAnthracene 20 U 2	91-94-1	3. 3'-Dichlorobenzidine	20 U
218-01-9 Chrysone 20 U	B6-55-3	BenzolalAnthracene	20 U
117-84-0 Di-n-Octyl Phinalste 20 U 205-99-2 BenzothFluoranthene 20 U 207-08-9 BenzothFluoranthene 20 U 50-32-8 BenzothFrene 20 U 193-39-5 Indeno(1, 2, 3-cd)Pyrene 20 U 53-70-3 Dibenzia hlAnthracene 20 U	117-81-7	bisi2-Ethylhexyl)Phinalate	20 U
205-99-2 BenzotbiFluoranthene 20 U 207-08-9 BenzotbiFluoranthene 20 U 50-32-8 BenzotbiFvrene 20 U 193-39-5 Indeno(1, 2, 3-cd)Fyrene 20 U 53-70-3 Dibenzia, hj&nthracene 20 U	218-01-9	Chrysene	20 U
207-08-9 BenzotkiFluoranthene 20 U 50-32-8 BenzotaiPyrene 20 U 193-39-5 Indeno(1, 2, 3-cd)Pyrene 20 U 53-70-3 Dibenzia, hiAnthracene 20 U	117-84-0	Di-n-Octyl Phthalate	20 U
50-32-8 Benzo(a)Pyrene 20 U 193-39-5 Indeno(1, 2, 3-cd)Pyrene 20 U 53-70-3 Dibenzia, hiAnthracene 20 U	205-99-2	BenzothFluoranthene	20 U
193-39-5 Indeno(1, 2, 3-cd)Pyrene 20 II 53-70-3 Dibenzia, hiAnthracene 20 II	207-06-9	BenzotkiFluoranthene	20 U
53-70-3 Dibenza hiAnthracene 20 U	50-32-8	BenzolalPyrene	20 U
	193-39-5	Indena(1, 2, 3-cd)Pyrene	20 11
191-24-2 Benzoig h i Perviene 20 U	53-70-3	Dibenza hiAnthracene	20 U
	191-24-2	Benzoig, h. i/Perviene	20 U

(1)-Cannot be separated from dighanylamine

Laboratory Name	HAZLETON LABORATORIES RECEIVED APR 2	_	
Case No	555%	9	1986

Sample Number EE 994

Organics Analysis Data Sheet (Page 3)

Pesticide / PCBs

Concentration: Low Date Extracted / Prepared:	Medium (Circle One)	GPC Cleanup 回Yes 例No Separatory Funnel Extraction 質Yes
Date Anelysed:		Continuous Liquid - Liquid Extraction Yes
Conc/Dil Factor:		
Occasion Marion in the second		

CAS		yg/ler ug/Kg
Number		(Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
80-57-1	Dieldrin	0.10 U
72-55-9	4.4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan il	0.10 U
72-54-8	4, 4'-000	0.10 U
1031-07-8	Endosuttan Sulfate	0.10 U
50-29-3	4.4'-007	0.10 U
72-43-5	Methoxychior	0.50 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.50 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Arocior-1016	0.50 U
11104-28-2	Arocior-1221	0.50 U
11141-16-5	Aroctor-1232	0.50 U
53469-21-9	Arocior-1242	0.50 U
12872-29-6	Arocior-1248	0.50 U
11097-69-1	Arocior-1254	1.0 U
11096-82-5	Arocior-1260	1.0 U

V_i = Volume of extract injected (ul)

V_e = Volume of water extracted (ml)

W_g = Weight of sample extracted (g)

V, * Volume of total extract (ul)

v. 1000 ml w v. 10,000 vl v. 4.0 ul	ارن
-------------------------------------	-----

Laboratory Name	HAZLETON LABORATORIES	
•	5558	
	•	A = = 11 = B

Sample Number EE 994

Organics Analysis Data Sheet (Page 4)

Tentatively Identified Compounds

RECEIVED APR 2 9 1986

CAS Number	Compound Name	Praction	My Scan	Estimated Concentration (ug/l) or ug/bg
1. 123422	4-hydroxy- 4-methyl - 2-pentanone	BAN	205	3 3
2 3 4	no volatiles found	VOA		
5 6 7				
8 9				
10 11 12				
13 14 18				
16 17 18				
18 10				
12 13	<u> </u>			
24 25 26				
27 28 29				

⁺ product of the aldol condunsation of acctone

_	WFPOYD	7	8
	Sample Number	1	
	EG 536	j	
RE _	CEIVED APE 2		•

Organics Analysis Data Sheet (Page 1)

Laboratory Name HAZLE	TON LABORATORIES	Case No:	<u>5558</u>	19 _{8δ}
Lab Sample ID No: 602	01137	QC Report No:		
Sample Matrix: WATE	R	Contract No: 68-	01-7146	
Deta Release Authorized B	y David c. Wills	Data Sample Receive	2-6-86	
	Volatile C	ompounds		
•	Concentration: (Low))	
	Date Extracted/Prepared	2-8-86	FRN 30169	
	Date Analyzed:		1551 .	
	Conc/Dil Factor:	pH	·	
	Percent Moisture: (Not D	lecanted)		

CAS Number		ug/I or ug/Kg (Circle One)
74-87-3	Chloromethane	10 Ü
74-83-9	Bromomethene	10 U
75-01-4	Vinyl Chloride	10 U
75-00-3	Chloroethane	10 U
75-09-2	Methylene Chloride	5 U
67-64-1	Acetone	10 U
78-15-0	Carbon Disuffide	5 U
78-35-4	1, 1-Dichloroethene	· 5 U
78-34-3	1, 1-Dichlorosthene	5 U
156-60-5	Trans-1, 2-Dichloroethene	5 U
67-66-3	Chioroform	5 U
107-08-2	1, 2-Dichloroethane	5 U
78-93-3	2-Sutanone	10 U
71-55-6	1, 1, 1-Trichloroethane	5 U
56-23-5	Carbon Tetrachloride	5 U
108-05-4	Vinyl Acetste	10 U
75-27-4	Bromodichloromethane	5 U

CAS Number		ug/l or ug/Kg
	1, 2-Dichloropropene	5 U
	Trans-1, 3-Dichloropropens	5 0
79-01-6	Trichloroethene	5 U
124-48-1	Dibromochloromethene	5 U
79-00-5	1, 1, 2-Trichloroethane	5 U
71-43-2	Benzene	5 U
10061-01-5	cis-1, 3-Dichloropropene	5 11
110-75-8	2-Chloroethylvinylether	10 U
78-25-2	Bromoform	5 U
108-10-1	4-Methyl-2-Pentanone	10 U
591-78-6	2-Hexanone	10 U
127-18-4	Tetrachioroethene	5 U
78-34-6	1, 1, 2, 2-Tetrachloroethane	5 0
108-88-3	Toluene	4 85 8-14
108-90-7	Chlorobenzene	5 U
100-41-4	Ethylbenzene	* 5 U
100-42-5	Styrene	. J 5 U
	Total Xylenes	25154

NOTO

Date Reserving Custificate

For reporting results to SPA, the following results qualifiers are used. Addressed Regs or feathers amplementy results are encouraged. However, the definition of each flag must be auplied:

- Value If the result is a value greater than or equal to the desection limit, report the value
- U insucates compound was analysed for but not detected. Report the structure detection time for the sample with the U to g., 10Ut based on necessary concentration (shubs) action. (This is not necessarily the instrument detection limits.) The features should read U-Compound was analysed for but not detected. The number is the minimum attainable detection limit for the sample.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1-1 response is assumed or when the mess spectral data indicated the presence of a compound that meets the identification criterie but the industrial test than the specified detection finish but greater than zero (e.g., 10.0). If finit of detection is 10 µg if and a concentration of 3 µg/I is calculated, report as 3.0.
- C This flag applies to posticide parameters where the identification has been confirmed by GC MS. Single component posticides ≥10 kg / ull in the final exercit should be confirmed by GC MS.
- 8 This flag is used when the analyse is found in the blank as well as a semple. It indicates possible probable blank concernments and works the data user to take appropriate action.
- Other Specific flags and footnoises may be required to properly define the results. If used, they must be fully described and such described attached to the data summery report.

Laboratory Name	HAZLETON LABORATORIES	RECEIVED APR 2 9 1986	Complete Name
Case No:	5558	- " N Z 9 1986	Sample Number EG 536

Organics Analysis Data Sheet (Page 2)

Semivolatile Compounds

Concentration: (Low) M	edium (Circle One)	GPC Cleanup TYes TNo
Date Extracted /Prepared:	2-6-96	Separatory Funnel Extraction EYes
Date Analyzed:	2-6-86	Continuous Liquid - Liquid Extraction Yes
Cone/Dil Factor:		RU 27073
Percent Moisture (Decented)		1637

CAS Number	(ug/Jer ug/Kg /Eircte One)
108-95-2	Phenoi	20 U
111-44-4	bisi-2-ChloroethvilEther	20 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1 3-Dichlorobensene	20 U
106-46-7	1. 4-Dichlorobengene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1. 2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
39638-32-9	bial2-chioroscorosyllEther	20 U
106-44-5	4-Memylehenel	20 U
621-84-7	N-Nitroso-Di-n-Propylamine	20 U
67-72-1	Mexachioroethene	20 U
98-95-3	Narabenzene	20 U
78-59-1	lacohorene	20 U
88-75-5	2-Nitrophenol	20 U
105-67-9	2. 4-Dimethylphenol	20 U
65-65-0	Benzoic Acid	100 U
111-91-1	bigi-2-ChloroethoxylMethani	50 N
120-63-2	2. 4-Dichlorophenol	20 U
120-82-1	1, 2, 4-Trichlorobenzene	20 U
91-20-3	Negnthelene	20 U
106-47-8	4-Chloroeniline	20 U
87-68-3	Hexachiorobutadiene	20 U
59-50-7	4-Chloro-3-Methylphenol	20 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachiorocyclopentadiene	20 U
88-06-2	2. 4. 6-Trichlorophenol	20 U
95-95-4	2, 4, \$-Trichlorophenor	100 U
91-58-7	2-Chioronaonthaiene	20 U
88.74-4	2-Nittroenshine	100 11
131-11-3	Dimethyl Phthalate	20 U
208-96-8	Aceneonthylene	20 U
99-09-2	3-Naroemine	100 U

CAS Number		ug/lor ug/Kg (Circle One)
83-32-9	Acenagnmene	20 U
51-28-5	2. 4-Dinitrophenol	100 U
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuren	20 U
121-14-2	2. 4-Dinitrotoluene	20 U
806-20-2	2, 6-Dinitrotoluene	20 U
84-86-2	Diethylphthelete	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroeniline	100 U
634-62-1	4, 8-Dinstro-2-Methylphenol	100 U
96-30-4	N-Nitrosodiohenylamine (1)	20 U
101-65-3	4-Bromophenyl-phenylether	20 U
118-74-1	Mexachiorobenzene	20 U
87-86-5	Pentachiorophenol	100 U
85-01-8	Phenenthrene	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
208-44-0	Fluorenthene	20 U
129-00-0	Pyrene	20 U
85-68-7	Butylbenzylphthelase	20 U
91-94-1	3. 3'-Dichlorobenzidine	20 U
56-55-3	Benzotal Anthracene	20 U
117-81-7	bix2-EthylhexvilPhthalate	20 U
218-01-9	Chrysene	20 U
117-84-0	Di-n-Octyl Phthelate	20 U
205-99-2	Benzo(b)Fluoranthene	20 U
207-08-9	Benzork/Fluoranthene	20 Ų
50-32-8	BenzotsiPyrene	20 U
193-29-5	Indenct1, 2, 3-cd)Pyrene	20 U
33-70-3	Dibenzia, hiAnthracene	20 U
191-24-2	Benzoig, h. iPerviene	20 U

(1)-Connex be separated from distributionary

Laboratory Name HAZLI Case No 5558	ETON LABORATOR	RIES TE CEIVED	APR 2 9 1986	Semple Number EC 536
	Org	anics Analysis Da (Page 3)	ta Sheet	
		Pesticide / PCB		
Concentration: Low	Medium (Circ	tle One) GF	C Cleanup 🗆 Yes 💆 No	•
Date Extracted / Prepared:	2-6-86		paratory Funnel Extra	,
	2 -12 -86			•
	1	W	ntinuous Liquid - Liqu	N EXTRECTION LITES
Conc/Dil Factor:	<u></u>			
Percent Moisture (decante	d)			
	CAS		ug/or ug/Kg	
	Number		(Circle One)	•
	319-84-6	Alpha-BHC	0.05 U	•
	319-85-7	Beta-BHC	0.05 U	
	319-86-8	Detta-BHC	0.05 U	
	58-89-9	Gemma-BHC (Lindane)	<u> 0.05 U</u>	
	76-44-8	Heptachlor	0.05 U	
	309-00-2 1024-57-3	Aldrin Heptachlor Epoxide	0.05 U 0.05 U	
	959-98-8	Endosulfan I	0.05 U	
	80-57-1	Dieldrin	0.10 U	
	72-55-9	4. 4'-DDE	0.10 U	
	72-20-8	Endrin	0.10 U	
	33213-65-9	Endosulfen II	0.10 11	
	72-54-8	4, 4'-000	0.10 U	•
	1031-07-8	Endosulfan Sulfate	0.10 U	
	80-29-3	4. 4'-DDT	0.10 U	
	72-43-5	Methoxychiar	0.50 U	
	53494-70-5	Endrin Ketone	0.10 11	
	57-74-9	Chlordane	0.50 U	
	8001-35:2	Toxephene	1.0 U	
	12674-11-2		0.50 U	
	11104-28-2		0.50 U 0.50 U	
	53489-21-9	المراكب المستحدد المستحددة	0.50 U	
	12672-29-6	المراجع المراجع المناسع المراجع الم	0.50 U	
	1.50.5.50	1		
	11097-69-1	Arocior-1254	1.0 U	

v. 10,000 ol v. 40 ol

V_j = Volume of extract injected (ul)
 V_g = Volume of water extracted (ml)
 W_g = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

boratory Name:	HAZLETON LABORATORIES	_
ne No	55 <i>5</i> 78	

Sample	Number
EG 53	36

Organics Analysis Data Sheet (Page 4)

RECEIVED APR 2 9 1935

Tentatively Identified Compounds

CAS Number	Compound Name	Frection	RT or Scan Number	Estimated Concentration (ug/l)er ug/kg)
1. 123422	4- hydroxy- 4-methyl- 2-pentanone *	BAN	206	26
3	no volatiles found	VOA		
4 5				
7				
9	·			
11				
13 14				
18 16				
17 18				
19 20				
21 22				
23 24				
28 28 27				
28	\frac{1}{1}			
30				

^{*} product of the aldol condensation of actions

86 F POY RIO

Bemple Number

EG537

Organics Analysis Data Sheet (Page 1)

Laboratory Name: HAZLETON LABORATORIES	Case No. 5558
Lab Sample ID No: 60201138	QC Report No:
Semple Matrix: WATER	Contract No: 68-01-7146
Date Release Authorized By David C Villy	Data Sample Received: 2-6-86
Voletile Concerntration: Low Date Extracted/Prepared:	Medium (Circle One)
Date Analyzed:	
Percent Moisture: (Not De	ecented)

CAS Number	(ug/i er ug/Kg Circle One
74-87-3	Chloromethane	10 U
74-83-9	Bromomethene	10 U
75-01-4	Vinyl Chloride	10 U
75-00-3	Chloroethane	10 U
75-09-2	Methylene Chloride	5 U
67-64-1	Acetone	10 U
75-15-0	Carbon Disulfide	5 U
76-35-4	1, 1-Dichloroethene	· 5 U
75-34-3	1, 1-Dichlorosthene	5 U
156-60-5	Trans-1, 2-Dichloroethene	5 U
67-66-3	Chloroform	5 U
107-08-2	1, 2-Dichloroethene	5 U
78-93-3	2-Buttanone	10 U
71-55-6	1, 1, 1-Trichloroethane	5 U
56-23-5	Carbon Tetrachloride	5_0
108-05-4	Vinyl Acetate	10 U
78-27-4	Bromodichloromethane	5_U

CAS Number	(47	er ug/Keirche One	
78-87-6 .	1, 2-Dichloropropene		5 U	
10061-02-6	Trans-1, 3-Dichloropropene		5 U	<u>"</u>
79-01-6	Trichloroethene		5 U	
124-48-1	Dibromachloromethene		5 U	
79-00-5	1, 1, 2-Trichloroethane		5 U	
71-43-2	Benzene		5 U	
10061-01-5	cis-1, 3-Dichloropropene		5_U	7
110-75-8	2-Chloroethylvinylether		10 1	1
78-25-2	Bromoform		5 1	
108-10-1	4-Methyl-2-Pentanone		10 U	
591-78-6	2-Hexanone		10 U	
127-18-4	Tetrachioroethene		5 U	
79-34-6	1, 1, 2, 2-Tetrachioroethane		5 U	
108-88-3	Toluene	2	37 54	IN 0
108-90-7	Chloroberizene		5 U	" TL
100-41-4	Ethylbenzene	•	5 U	
100-42-5	Styrene		5 U	
	Total Xylenes		5 U	

Date Repairing Qualiflars

For reporting results to SPA, the following results qualifiers are used. Additional flags or fearness explaining results are ensouraged. However, the definition of each flag must be explicit.

- Value If the result is a value greater then or equal to the detection limit, report the value
- U Indicates compound was analyzed for but not desected. Report the minimum desection limit for the sample with the U is g., 10UI based on necessary concentration/dilution action. (This is not necessarily the instrument desection limit.) The feometic should read: U-Compound was analyzed for but not detected. The number is the minimum attainable desection limit for the sample.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1-1 response is assumed or when the mess section dose indicated the greance of a compound that meast the identification criteria but the result is less than the specified detection firms but greater than zero (e.g., 10J). If limit of detection is 10 µg 1 and a concentration of 3 µg 1 is calculated, report as 3J.
- C This flag applies to projectic parameters where the identification has been confirmed by GC MS. Single companion particular ≥10 rg rul in the final extract should be confirmed by GC MS.
- This flag is used when the analyte is found in the blank as well as a sample. It indicates passible probable blank contamination and warns the data user to take appropriate action.
- Other specific flags and footnoise may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

		RECEIVE	
Laboratory Name:	HAZLETON LABORATORI	ES CIVED APR 2 0	Sample Number
Case No:	5558	ES RECEIVED APR 2 9 1986	E6 537
	_		

Organics Analysis Data Sheet (Page 2)

Semivoletile Compounds

Concentration: (Low) Med		GPC Cleanup DYes BNo
Date Extracted /Prepared:	2-6-86	Separatory Funnel Extraction (2)Yes
Date Analysed:	2-6-84	Continuous Liquid - Liquid Extraction DYes
Conc/Dil Factor:		Fen 27074
Percent Moisture (Decembed) _		<u> </u>

CAS Number	(ug/let ug/Kg (Circle One)
108-95-2	Phenol	20 U
111-44-4	bis-2-ChloroethvI)Ether	20 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1 3-Dichlorobensene	20 U
106-46-7	1. 4-Dichlorobensene	20 U
100-51-6	Sensyl Alcohol	20 U
95-50-1	1, 2-Dichloropensene	20 11
95-48-7	2-Methylphenol	20 U
39638-32-9	biel2-chloroiscorosyllEther	20 U
106-44-8	4-Methylehenol	20 U
021-64-7	N-Naroso-Di-n-Propylamine	20 U
87-72-1	Hexachlerosthane	20 U
96-95-3	Nitrobensene	20 U
78-59-1	lecohorone	20 U
20-75-5	2-Nitrophenol	20 U
106-67-9	2. 4-Dimetrytohenal	20 U
65-65-0	Benzoic Acid	100 U
111-91-1	brsi-2-Chlorosthoxy Methani	20 U
120-83-2	2. 4-Dichlerephenel	20 U
120-82-1	1, 2, 4-Trichlorobenzene	20 U
91-20-3	Negnthelene	20 U
106-47-8	4-Chioroeniline	20 U
87-48-3	Hezachlorobutadiene	20 U
59-50-7	4-Chlore-3-Methylphenal	20 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	20 U
88-06-2	2, 4, 6-Trichlorophenol	20 U
95-95-4	2, 4, 5-Trichlorophenor	100 U
91-58-7	2-Chioronaphthalene	20 U
88.74-4	2-Nitrosnikne	100 U
131-11-3	Dimethyl Phthalate	20 U
208-96-8	Aceneonthylene	20 U
99-09-2	3-Nitroeniline	100 U

CAS Number		ug /1 or ug /Kg Eircle One
83-32-9	Acenaphtnene	20 U
51-28-5	2. 4-Dinitrophenol	100 U
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuren	20 U
121-14-2	2. 4-Dinitrotaluene	20 U
906-20-2	2. 6-Dinitratoluene	20 U
84-86-2	Distrytphthalate	20 U
7005-72-3	4-Chlorophenvi-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroeniline	100 U
634-62-1	4, 6-Dinstro-2-Methylphenol	100 ป
96-30-4	N-Nitrosadiphenylamine (1)	20 U
101-65-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hezechlorobenzene	20 U
87-86-5	Pentachiorophenoi	100 U
85-01-8	Phenanthrene	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	20 U
129-00-0	Pyrene	20 U
25-48-7	Butylbenzylphthalate	20 U
91-94-1	3.3'-Dichlorobenzidine	20 U
36-55-3	BenzotalAnthracene	20 U
117-81-7	bisi2-EthylhexvilPhthalate	20 U
218-01-9	Chrysene	20 U
117-84-0	Di-n-Octyl Phonelate	20 U
205-99-2	BenzolbiFluoranthene	20 U
207-08-9	Benzolk)Fluoranthene	20 U
50-32-8	Benzolalifyrene	20 U
193-39-5	Indenot1, 2, 3-od)Pyrene	20 U
83-70-3	Dibenzia, hiAnthracene	20 U
191-24-2	Benzolg, h. ilPerviene	20 U

⁽¹⁾⁻Cannot be separated from dighenylamina

Laboratory Name	HAZLETON LABORATORIES ECEIVED APR 2	g	100h
Case No55	58		1300

Semple Number EG 537

Organics Analysis Data Sheet (Page 3)

Pesticide / PCBs

Concentration Low Medium	(Circle One)	GPC Cleanup DYes QNo
Date Extracted / Prepared:		Separatory Funnel Extraction XYes
Dete Analyzed: 2 - 12 -80		Continuous Liquid - Liquid Extraction - Yes
Conc/Dil Factor:		
Percent Moisture (decanted)		

CAS		ug/lor ug/Kg
Number		(Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4, 4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4, 4'-000	0.10 U
1031-07-8	Endosultan Sulfate	0.10 U
50-29-3	4, 4'-00T	0.10 U
72-43-5	Methoxychlor	0.50 U
53494-70-5	Endrin Katona	0.10 U
57-74-9	Chlordene	0.50 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroctor-1016	0.50 U
11104-28-2	Aroctor-1221	0.50 U
11141-16-5	Aroclor-1232	0.50 U
53469-21-9	Arocior-1242	0.50 U
12672-29-6	Aroclor-1248	0.50 บ
11097-69-1	Arocior-1254	1.0 U
11096-82-5	Arocior-1260	1.0 U

V_i = Volume of extract injected (ul)

V_{s.} * Volume of water extracted (ml)

Wg = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V,	1000 ml	or W ₈	v, 10,000 U	v. 4.001	
----	---------	-------------------	-------------	----------	--

Leg 93	
sedmult elqme&	

Organics Analysis Data Sheet			
	855	_	Case No
CHINKIES	LABUR	NUT3JZAH	Laboratory Name

Tentstively Identified Compounds

(p =68d)

Batamited Concentration (gd/gu w [\gu]	My or Second	nectori	Compound Name	CAS Number
εı	806	MAG	Scountage - S - Incline vxanbud - H	उरमध्य ।
75	59	Aoy	Ποκοσωρ	
			` ` `	.*
				٠.
				·
				.0.
			·	.8.
				.81
				٠٠٠.
	 	 		
				. N
			<u> </u>	
				. 65
				.25.
	<u> </u>			36.
				. 62

* product of the older condensation of actors.

86 F P O Y 580 Sample Number E G 538

Organics Analysis Data Sheet (Page 1)

Laboratory Name HAZLETON LABORATORIES	Case No: 5358
Leb Semple ID No: 6020 139. Semple Matrix: WATER	OC Report No:
Data Release Authorized By: Dail C. Chill	Dete Sample Received: 2.6-86
Volatile Co Concentration: Data Extracted/Prepared: Data Analyzed: Conc/Dil Factor: Percent Moisture: (Not De	Medium (Circle One) 2-8-86 FRN 80171 2-8-96 1710

CAS Number		ug/lar ug/Ke Circle One
74-87-3	Chloromethene	10 U
74-83-9	Bromomethene	10 U
78-01-4	Vinyi Chloride	10 U
75-00-3	Chloroethene	10 U
75-09-2	Methylene Chloride	5 0
67-64-1	Acetone	10 U
75-18-0	Carbon Disulfide	5 U
78-36-4	1, 1-Dichloroethene	. 5 U
78-34-3	1, 1-Dichloroethene	5 U
156-60-5	Trans-1, 2-Dichloroethene	5 U
67-86-3	Chloroform	5 U
107-06-2	1, 2-Dichlorosthene	5 U
78-93-3	2-Butanone	10 U
71-55-6	1, 1, 1-Trichloroethane	5 U
56-23-5	Carbon Tetrachloride	5 U
108-06-4	Vinyl Acetate	10 U
75-27-4	Bromodichloromethene	5 U

CAS Number		ug/lor ug/Kg [Circle One)
78-87-5 .	1, 2-Dichloropropene	5 U
10061-02-6	Trans-1, 3-Dichloropropene	5 U
79-01-6	Trichloroethene	5 U
124-48-1	Dibromochloromethene	5 U
79-00-5	1, 1, 2-Trichloroethane	5 U
71-43-2	Benzene	5 U
10061-01-5	cis-1, 3-Dichloropropene	5 11
110-75-8	2-Chloroethylvinylether	10 U
78-25-2	Bromaform	5 11
108-10-1	4-Methyl-2-Pentanone	10 U
591-78-6	2-Hexanone	10 U
127-18-4	Tetrachioroethene	5 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 U
108-88-3	Toluene	285
108-90-7	Chlorobenzene	5 U
100-41-4	Ethylbenzene	5 U
100-42-5	Styrene	5 U
	Total Xylenes	45

NOTO

Date Reparant Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional Rops or feetness septeming results are ensouraged. However, the
definition of each flag must be eighted.

- Value If the result is a value greater than or equal to the dissection limit, report the value
 - Use indicates compound was analyzed for but not desected. Repen the summum desection limit for the stimple with the U to g., 10Ut beads on necessary concentration / division action. (This is not necessarily the instrument detection family.) The features should read: U-Compound was analyzed for but not detected. The number is the servicion attacked detection land for the service.
 - J Indicates an estimated value. This flag is used either when estimating a concentration for sentatively identified compounds where a 1-1 response is assumed or when the most spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection infinit but greater than zero (e.g., 10J). If limit of detection is 10 µg 1 and a concentration of 3 µg 1 is calculated, report as 3J.
- C This flag applies to presente parameters where the identification has been confirmed by GC MS. Single compenent pesticities ≥10 mg rul in the final eleract should be confirmed by GC MS.
- This flag is upper when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and works the data uppr to take appropriate action.
- Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name	HAZLETON LABORATORIES
Case No:	5558

Sample Number EG 538

Organics Analysis Data Sheet (Page 2)

Semivolatile Compounds

RECEIVED APR 2 9 1986

Concentration: (Low)	Aedium (Circle One)	GPC Cleanup DYes MNo
Deta Extracted /Prepared:		Separatory Funnel Extraction (2)Yes
Dese Analysed:	2-6-26	Continuous Liquid - Liquid Extraction @Yes
Conc/bil Factor:		_FRN 27075
Percent Moisture (December	n	<u>_</u> 1614 ·

CAS Number		ug/ler ug/Kg (Circle One)
108-95-2	Phenol	20 U
111-44-4	bisi-2-Chloroethyl)Ether	20 Ū
95-57-8	2-Chlorophenol	20 U
541-73-1	1 3-Dichlorobengene	20 U
106-46-7	1. 4-Dichlorobensene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1, 2-Dichtorobensene	20 U
95-48-7	2-Methylphenol	20 U
39638-32-9	bial2-chlorolecorosyllEther	20 U
106-44-5	4-Memylphenol	20 U
621-64-7	N-Nitroso-Di-n-Progytamine	20 U
67-72-1	Hexachloreethane	20 U
98-95-3	Nitrobensane	20 U
78-59-1	Iscohorone	20 U
88-75-5	2-Nitrophenol	20 U
105-67-9	2. 4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	100 U
111-91-1	bisi-2-ChloroethoxylMethans	20 U
120-83-2	2. 4-Dichlorophenel	20 U
120-82-1	1, 2, 4-Trichlerabenzene	20 U
91-20-3	Napritheiene	20 U
106-47-8	4-Chioroentine	20 U
87-48-3	Hexachlerobutadiene	20 U
59-50-7	4-Chloro-3-Methylphenol	20 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachiorocyclopertadiene	20 U
88-06-2	2.4, 6-Trichlerophenel	20 U
95-95-4	2, 4, 5-Trichlorophenol	100 U
91-59-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroeniline	100 11
131-11-3	Dimethyl Phthalate	20 U
206-96-8	Acenephthylene	20 U
99-09-2	3-Naroamine	100 U

CAS Number		ug/ler ug/Kg Circle One
83-32-9	Acenaphthene	20 U
\$1-28-5	2. 4-Dinstrophenol	100 U
100-02-7	4-Nitrophenol	100 U
132-84-9	Dibensoluren	20 U
121-14-2	2. 4-Dinitrotoluene	20 U
806-20-2	2. 6-Dinitrotoluene	20 U
84-86-2	Disthylphtholate	20 U
7005-72-3	4-Chlorophenvi-phenylether	20 U
96-73-7	Fluorene	20 U
100-01-4	4-Nitreeniline	100 U
834-52-1	4, 6-Dinstro-2-Methylphenol	100 U
96-30-4	N-Nitrosotionenylemine (1)	20 U
101-65-3	4-Bromophenyl-phenyletner	20 U
118-74-1	Mezachioropenzene	20 U
87-86-5	Pentachiorophenol	100 U
85-01-8	Phenanthrene	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	20 U
129-00-0	Pyrene	20 U
85-48-7	Butylbenzylphthelate	20 U
91-94-1	3. 3'-Dichlorobenzidine	20 U
56-55-3	BenzotalAnthracene	20 U
117-81-7	bist2-EthylhexvilPhthalate	20 U
218-01-9	Chrysene	20 U
117-84-0	Di-n-Octyl Prithalate	20 U
205-99-2	BenzolbiFluoranthene	20 U
207-08-9	Benzorkifiuoranthene	20 U
80-32-8	BenzolalPyrene	20 U
193-39-5	Indeno(1, 2, 3-cd)Pyrene	20 U
53-70-3	Dibenza hlanthracene	20 U
191-24-2	Benzolg, h. iPerviene	20 U

(1)-Cannot be separated from dighenylamine

Laboratory Name	HAZLETON LABORATORIES
Case No _5558	

Semple Number EG 538

Organics Analysis Data Sheet (Page 3)

	(rage 3)	
_	Pesticide/P(CBs
Concentration. Low Medium (Cire	cle One)	GPC Cleanup DYes No
Dete Extracted Prepared 8-6-86		Separatory Funnel Extraction (Yes
•		
Dets Analysed		Continuous Liquid - Liquid Extraction Yes
Conc/Dil Factor:		SECT.
Percent Moisture (decented)		WELEIVED APT 2
CAS Number		RECEIVED APR 2 9 1986
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Detta-BHC	0.05 U
58-89-9	Gemma-BHC (Unda	الموالين في التواميد والموالين في المواميد والمواميد والمواميد والمواميد والمواميد والمواميد والمواميد والمواميد
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptechlor Epoxide	0.05 U
959-98-8 60-57-1	Endosulfan I Dieldrin	0.05 U
72.55.0	4. 4'-DDE	0.10 U 0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-000	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4. 4'-DDT	0.10 U
72-43-5	Methoxychlor	0.50 U
53494-70-5	4	0.10 11
57-74-9	Chlordane	<u> </u>
8001-35-2	Tosaphene Arocior-1016	1.0 U 0.50 U
	Aroctor-1221	0.50 U
	Arocior-1232	0.50 0
	Aroclor-1242	0.50 U
12672-29-6	Arocior-1248	0.50 U
11097-69-1	Arocior-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U
v _e w	 Volume of extract Volume of water e Weight of sample Volume of total ex 	extracted (mi)
v. 1000ml arw.	v,.	10,000 u 4.0 u/

Laboratory Name	HAZLETON LABORATORIES	
Case No	5558	

Sample Number EG 5 38

Organics Analysis Data Sheet (Page 4)

Tentatively Identified Compounds RECEIVED APR 2 9 1986

GAS Number	Compound Name	Praction	RT or Scan Number	Estimated Concentration (ug/lier ug/leg)
1. /23422	4-hydroxy-4-methyl- 2-pentanone #	BAN	206	lb
2 3 4	no volatiles found	YOA		
5 6 7				
9 10				
11 12 13	·			
14 18				
17				
20 21				
22 23 24				
26 26 27				
29 29 30				

^{*} product of the aidol condensation of acetone



ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415 International Specialists in the Environment

Date Received for Review: 3-24-86 Date Review Completed:	4-2-86
TO: Pat Petrella	
FROM: Suzanne Kozlowski	
SUBJECT: Chemical Recovery Systems Ohio Ro	5-8512-06
Sample Description: Case # 5558 five (5) how wat	er metals
Project Data Status: waiting for organics	*
FIT Data Review Findings: Thallium and silver data is unuseable Blank, MEG 196, had AI, Fe, Pb defected in it. Duplicate MEG 195 and sample MEG 198 we	re okay.

Additional Comments:

Book No. <u>5</u>
Page No. <u>108</u>

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V

3·21·17	
Review of Region V ELP Date Received for Review on 3/4/86 RECEIVED MAR 2	4 1988
Central Regional Laboratory Jan Thoken Data User:	
Dita vier:	
We have reviewed the data for the following case(s). SITE NAME: [Almical Relating Suptems SHO Case No. 6557] KD. of D.U./Activity EPA Data Set No. 5F 3031 Samples: 5 Numbers 4051048.	500
80 No. 86 FP 04518 - 86 FP 04580	
SY.3 Traffic No. WEG-195 - WEG-198; WEE311 Hrs. Required	
CLP Laboratory: // / / for Review:	- ~
dindings	1 .1
This review covers five low concentration water samples a for metals. The spike recovery for T/ (50%) was biased low; the T// are estimated.	
The Ag data is unuscable due to a low LCS (52%) and	a low-
(The lab did not take corrective action as a result of have	nja
spike recovery (42%). (The lab did not take corrective action as a result of have a low Ag LCS %R.) Jan 3	Belo 120/86
Data are acceptable for use. Data are acceptable for use with qualifications noted above. Data are preliminary - pending verification by Contractor Laboratory Data are unacceptable.	f•
cc: Dr. Alfred Haeberer/Joan Fisk/Gary Ward, EPA Support Services Ross K. Robeson, Dist-las Vegas Don Trees, ELP/Sample Fanagement Office	

U.S. EPA Contract Laboratory Program Sample Management Office P.U. Box 816 - Alexandria, VA 22313 703/557-2490 FTS: 8-557-2490

RECEIVED MAR 2 4 1986

Date 2-26-86

COVER PAGE INORGANIC ANALYSES DATA PACKAGE

Lab Name CHEMTE	CH CONSULTING GROUP	Case No.	5558
SOW No.	784	Q.C. Report	No. 615
	Sample	Numbers	
EPA No.	Lab ID-No.	EPA No.	Lab ID No.
MEG 195	G2- 615-01		
196	-02		
197	-03		
198	- 04	- E	
mee 311	-05		[] 医原则是101
		l	1.02 0.03
		US C.	
		teror	ed Commission (1997) George Commission (1997)
ICP Interelement	and background correction	ons applied? Yes <u>X</u>	
	lons applied before x		
Footnotes:			:
NR - not requi	ired by contract at this	time	•
Form I: Value - If the w	result is a value greater	then or equal to the	instrument
detectio	on limit but less than the	e contract required d	letection limit,
report t	the value in brackets (1.	e., [10]). Indicate	the analytical
metnod u U - Indicate	used with P (for ICP/Flames element was analyzed for	or but not detected.	Report with the
detectio	on limit value (e.g., 100)).	•
	es a value estimated or n		
interier S - Indicate	rence. Explanatory note : es value determined by Me	thod of Standard Addi	tion.
R - Indicate	es spike sample recovery	is not within control	limits.
* - Indicate	es duplicate analysis is	not within control li	lmits.
	es the correlation coeffic	Cleur for mernod of a	rendera endreton 18

•	Form I PECEIVED MC 2 4 195
U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: 8-557-2490	EPA Sample No.
INORGANIC A	ANALYSIS DATA SHEET
AB NAME CHEMTECH CONSULTING GROUP	CASE NO. 5558
50W NO. 784	
AB SAMPLE ID. NO. 62-615-02	QC REPORT NO. 615
Elements Ide	entified and Measured BLAN
Concentration: Low	Medium
Matrix: Water Soil	SludgeOther BK.
Aluminum 7957 P Antimony 50 v P Arsenic 8 v F Barium 67 v p Beryllium 3 v P Cadmium 4 v P Calcium 598 v P Chronium 8 v P Cobalt 20 v P	13. Magnesium 238 p. 14. Manganese 14 p. 15. Mercury 0.19 c. 16. Nickel 20 p. 17. Potassium 500 p. 18. Selenium 4 p. 19. Silver 7 p. 20. Sodium 2700 p. 21. Thallium 6 p. F.
	21. Thallium 60 FK 22. Tin 270 F
C. 7 a	23. Vanadium 300 P
1. Iron 1611 P 2. Lead (53) F	24. Zinc 26 P
yanide NR	Percent Solids (%)
as defined on Cover Page.	EPA, standard result qualifiers are use. Additional flags or footnotes explains. Definition of such flags must be explicage, however.
	7 11 1 -
	Lab Manager

Porm I

U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: 8-557-2490

FOF POY 578 EPA Sample No.
EPA Sample No.
MEG 198
Date 2-26-86

703		FTS: 8-557-2490			Date 2-26-86
					Date 2-20-00
_	Cun		C ANALYSIS	DATA SHEET	
		TECH CONSULTING GROUP		CASE NO.	· <u>5558</u>
		784			
LAB	SAMPLE ID.	No. 62-615-04		QC REPOI	RT NO615
		Elements	Identified	and Measured	<u>4</u>
Con	centration:	Low		Medium _	· .
iet	rix: Water	Soil		Sludge	Other
.	Aluminum	ug/L) or mg	- '	eight (Circle Magnesium	9380 P
		500 P		Manganese	201 P
2. 3.	Antimony Arsenic	8υ F		Hercury	0.190
4.	Barium	<i>[79</i>] p		Nickel	[22] P
5.	Beryllium	30 P		Potassium	[4810] P
5. 5.	Cadmium	<i>4</i> ∪ P		Selenium	HUF
	Calcium	29300 P		Silver	70PR
	Chronium	(12) P		Sodium	15700 P
	Cobalt	20 U P	21.	Thellium	60 FR
10.	Copper	16 U P		Tin	270F
	Iron	12000 P	23.	Vanadium	300 P
12.	Lead	(9.2) F	24.	Ziac	54 P
Cyai	aide				()
? 001	44 Te	defined on Cover Pag	ge. Addit . Definit	ional flags of such	lt qualifiers are use or footnotes explaining flags must be explici
Com	ents:				
	· ·		•		

Lab Manager

•	Porm I NES 2 4 1986
U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313	RECEIVED NER 2 4 1986 RECEIVED NER 2 4 1986 REG 195
703/557-2490 FTS: 8-557-2490	Date 2-26-66
INORGANIC A	ANALYSIS DATA SHEET
LAB NAME CHEMTECH CONSULTING GROUP	CASE NO. 5558
SOW NO. 784	
LAB SAMPLE ID. NO. 62-615-01	QC REPORT NO. 615
Elements Ide	entified and Measured Duplicate of Medium MEG 198 Sludge Other
Concentration: Low	Medium MFG 198
Matrix: Water Soil	Sludge Other
ug/Lor mg/k	kg dry weight (Circle One)
1. Aluminum 8380 P	13. Magnesium 9010 P
2. Antimony 500 P	14. Manganese 195 P
3. Arsenic Su F	15. Hercury 0.19 v.
4. Barium [86] P	16. Nickel 200 P
5. Beryllium 30 P	17. Potassium 5320 p
6. Cadmium 40 P	18. Selenium 40 F
7. Celcium 28100 P	19. Silver 70 PR
8. Chronium (13) P	20. Sodium 15000 P
9. Cobalt 20 v P	21. Thellium 60 FR
10. Copper 16 v P	22. Tin 270 F
11. Iron //800 P	23. Vanadium 30 v P
12. Lead (11) FS	24. 21nc 57 P
Cyanide NR .	Percent Solids (I)
as defined on Cover Page. results are encouraged. and contained on Cover Pa	EPA, standard result qualifiers are used. Additional flags or footnotes explaining Definition of such flags must be explicit age, however.
Comments:	
	- 1
	4.15
	Lab Manager Hedra

Porm I

U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: 8-557-2490

REG	EPA	Sam	Ple No	979)26 !
	ME	E	3//		
D	at e	9-	26-	96	

Medium	DECEMED KOD 2 4
Sludge	Other
	One)
	9060 P
14. Manganese	191 P
15. Mercury	0.90.5
16. Nickel	20 J P
17. Potassium	<i>5420</i> p
18. Selenium	40 F
19. Silver	70 PR
20. Sodium	15400 P
21. Thallium	60FR
	27UF
	30 L P
24. Zinc	62 P
Percent Solids (X)	· · · · · · · · · · · · · · · · · · ·
	Iry weight (Circle 13. Magnesium 14. Manganese 15. Mercury 16. Nickel 17. Potassium 18. Selenium 19. Silver 20. Sodium 21. Thallium 22. Tin 23. Vanadium 24. Zinc Percent Solids (X) A, standard result dditional flags or

Lab Hanager

1	'o [1	1
•		

U.S. EPA Contract Laboratory Program

RECEIVED MAR 2 4 1986

B NAME CHEMTECH CONSULTING GROUP	ANALYSIS DATA SHEET CASE NO5	558
OV NO. 784	· · · · · · · · · · · · · · · · · · ·	
AB SAMPLE ID. NO. 62-615-03	QC REPORT NO.	615
Elementa Id	entified and Heasured	
Concentration: Low		_
Matrix: Water Soil		
. Antimony 500 P	13. Magnesium 14. Manganese	196 P
	kg dry weight (Circle One)	8960 P
	14. Manganese	196 P
Arsenic 80 F	15. Mercury	0.190:
Barium 670 P	16. Nickel	200 P
. Beryllium 30 P	17. Potassium	5290 P
. Cadmium 40 P	18. Selenium	40 F
Calcium 27500 P	19. Silver	70 PR
Chromium ([9.4])P	20. Sodium	14600 P
Cobalt 200 P	21. Thellium	60 FR
10. Copper /60 P	22. Tin	270 F
11. Iron /2300 P	23. Vanadium	<i>30</i> υ P
2. Lead (9.6) F	24. Zine	56 P
	Percent Solids (%)	•